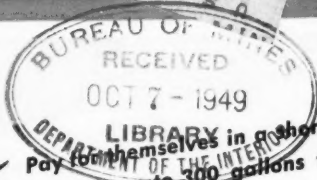


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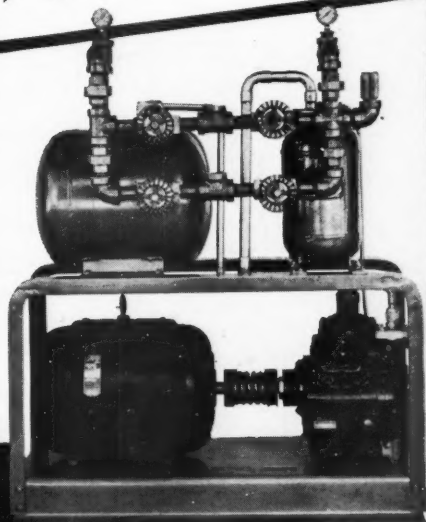
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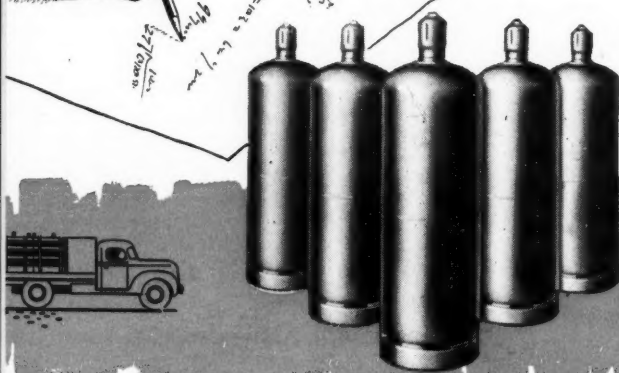
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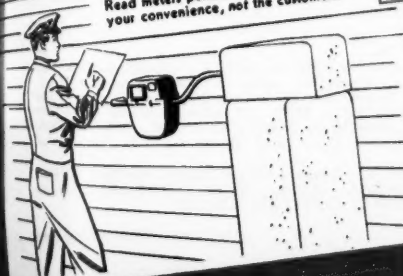


Serve several consumers from a single tank.



Rustproof, weatherproof case permits out-of-doors installation.

Read meters periodically, fill tanks at your convenience, not the customers.



Simple to repair—entire mechanism lifts from case for economical replacement and repair.





A JENKINS PUBLICATION

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LETTERS

- **BUTANE-PROPANE** *News* welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in opinions expressed by them.—Editor.

Gentlemen:

We have heard stated several times that an engine using LP-Gas for fuel should use a special oil. If this is true, what are the requirements, specifications and such?

Where can we get information covering the different compression ratios of tractors and what they should be changed to for proper operation on LP-Gas?

P.L.M.

Kansas

Due to the fact that there is no crankcase dilution when using butane-propane fuels in an engine, it is possible to use a lighter weight oil with less frequent changes. Due to not changing the oil as often, the tendency is for the oil to increase in viscosity with use.

No special oils are required.

Information on the compression ratio possible to obtain and use can be obtained from the various engine manufacturers and the carburetor manufacturers.—Ed.

Gentlemen:

May I enlarge on the answer given J.M.F.H., of Kentucky, to his question in the September issue, page 31.

Speaking from actual experience, I, too, had trouble with pilots flickering but now it is very simple. I spend a large part of my time working with our retail dealers, helping them with their service problems. The problem of J.M.F.H. comes up frequently and, simple as it is, it stumps even servicemen of wide experience.

The flickering is caused by the valve

cock lubricant that is used in the pilot control valve. The best and only remedy is to take the valve out of the manifold, take it apart, carefully clean out the valve, relubricate the valve with a thin coat of lubricant, and then replace valve. Be sure to use only valve cock lubricant that is made for LP-Gas. In most pilots that flicker it will be found that the lubricant in the valve is thin. Care must be taken that the replaced lubricant is not too thin, and that there is not an excess amount of lubricant left in valve.

W. C. Sides

Service Engineer,

Semo Gas Co., Inc.

Malden, Missouri

Thanks very much for this excellent information upon the tendency of pilot lights to flicker at certain times.—Ed.

Gentlemen:

We have a problem which is causing us quite a bit of trouble. I have read your magazine for several years and find your advice very helpful.

We have a 50 hp. boiler operating on butane gas heating a school building. The boiler is a Model HD 2x24 Mund water tube, using a Haney No. 1012 burner with drill size No. 44 orifices.

According to instructions, the burner is to operate at 6 oz. pressure. At this pressure we cannot maintain proper steam pressure. The burner burns with a nice blue blaze. To get the steam high enough for proper operation we have to increase the gas line pressure to 22 oz. At this pressure the burner burns a straw col-

ored blaze and uses from 40 to 60 gallons of butane an hour.

According to your Handbook this boiler should use about 18 gallons per hour, based on 33,000 Btu per hour per horsepower.

Will appreciate any information you may be able to supply on this matter.

A.E.R.

Texas

We have checked with the boiler manufacturer and the burner manufacturer and find that the operating pressure of the gas should be 11 inches of water column, which should develop 125% of rating.

The high pressure on the gas supply will cause an inefficient use of the fuel and the consumption does not indicate the true amount of fuel needed.

There are several things to check into. The first is the boiler setting and combustion chamber design; second, the load on the boiler; and third, the operation of the controls.

If the load imposed on the boiler is within 125% of the normal rating, it should be possible to get satisfactory operation. Boiler settings can influence the efficiency considerably and if the controls are not functioning correctly, you naturally will have trouble.

We would suggest that you get in touch with the installer of the unit and have a serviceman check out on your troubles as it is impossible for us to advise you just what they are with the exception that the high pressure in the burner is not giving the proper flame characteristics or fuel consumption.—Ed.

Gentlemen:

Would you please let us know if there is any type of compound, gas or liquid that can be placed in a used propane tank that will make this tank safe to weld on.

We have a 500 gallon propane tank in use that has a small leak in the weld and the local welders are afraid to weld on the tank without some type of compound being placed in the tank.

D.G.B.

New Mexico

We know of no compound that should be used in a case like this. The tank may be

filled with water but if for some reason it cannot be welded when full of water, then drain the water off and put in CO₂. In using CO₂, bleed off the existing propane first.

An inexperienced welder should not be used for this work. The best plan would be to send your tank to some ASME shop where they have cold welders who are intimately familiar with this work and where they can make hydrostatic tests of the tank after it has been welded. If you have a welder come to you, he should be from an ASME shop.—Ed.

Gentlemen:

We service a large veterans emergency housing unit with propane gas through two large tank systems. Up until now we have sent a total of gallons used to a central office who divided it up and charged it out. We recently have changed this over to meters which are calibrated in cubic feet.

Can you furnish a chart or information about the cubic foot contents of a gallon of propane at different degrees? We know that there are 36.398 cu. ft. per gallon at 60 degrees but cannot figure out how many at lower degrees such as 40, 30, etc.

I am certain that if we charged gas out at that figure for the whole year, we would be losing quite a little in extremely cold weather. I would appreciate anything you can do for me in this matter.

R.B.R.

Minnesota

When metering gas, correction should be made for pressure and temperature. If the meter reads 100 cu. ft. and the pressure is 10 pounds, the actual cubic feet is the meter reading multiplied by a correction factor which is the gauge pressure plus 14.7 divided by 14.7

$$\text{Example: } \frac{14.7 \times 10}{14.7} = 1.68$$

$$100 \times 1.68 = 168 \text{ cu. ft. delivered.}$$

Correction for temperature is handled in a similar manner.

If the temperature of the gas is 30°, the absolute temperature is 459.72 plus 30, or 489.72. The base temperature of 60° is 459.72 + 60, or 519.72.

Divide the base temperature by the measured temperature to get the correction factor.

Example: Measured temperature 30° F.

$$\frac{519.72}{489.72} = 1.06$$

$$100 \text{ cu. ft.} \times 1.06 = 106 \text{ cu. ft. delivered.}—\text{Ed.}$$

The next letter is a continuation of this correspondence.

Gentlemen:

I appreciate the information you sent me and have used your formula. After miles and miles of figures I arrive at this: One gallon of propane will produce 33.69 cu. ft. of vapor at 37.3° and 11 inch water column. Is this correct?

As you know, our problem was to find out how much a gallon of propane would vaporize.

We recently installed this job, running propane vapor through meters at 11 inches water column. We arrived at an average temperature for a year up here and found it to be 37.3° F. We take it for granted that a gallon of propane will produce somewhere in the neighborhood of 36 cu. ft. at 60°, and also that at a lower degree it would produce less.

I guess it all boils down to this: How many feet of vapor can we expect from a gallon of propane at 37.3° when we are metering it at 11 inches water column?

R.B.R.

Minnesota

Apparently you have made a mistake along the line some place. In the first place, there are always 36.398 cu. ft. to a gallon, but a meter does not always register true cubic

feet due to pressure and temperature differences.

The following is the correct method to compute adjustment of meter reading under the conditions you name:

11" H₂O = .4 pounds per square inch.

14.7 + .4

———— = 1.027 pressure correction.

14.7

459.72 + 60 = 519.72 Absolute temp. @ 60° F.

459.72 + 37.3 = 497.02 Absolute temperature @ 37.3° F.

519.72

———— = 1.045 Temperature Correction.

497.02

1.027 × 1.045 = 1.074. Correction for pressure and temperature.

Multiply meter reading by 1.074 to get actual cubic feet at atmospheric pressure and 60° F which is standard cubic feet that you can bill on.

Your meter will read 33.69 cu. ft. if the vapor is at 37.3° and 11" of water. It still is 1 gallon of propane as the heat content per cubic foot is just that much higher than a cubic foot at 60°.—Ed.

Gentlemen:

We have a 2100-gallon propane installation which is used to fire aluminum melting furnaces.

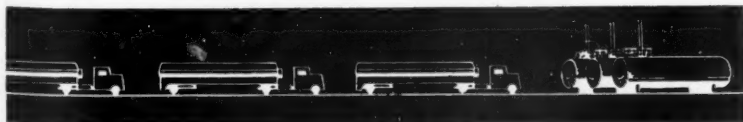
We find that in the winter time or in cold weather the pressure in the tank, regardless of the amount of liquid gas present, falls to a very low point and we have difficulty in getting enough gas into our foundry to maintain efficient heating.

We would appreciate it very much if you would make recommendations for overcoming this condition.

S.T.

New York

It is quite likely that your withdrawal is so heavy that, during cold weather, vaporization is not rapid enough. This can be overcome by installing a heat exchanger or vaporizer.—Ed.





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and quantity
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COMMENT

THE 90th anniversary of the discovery of the nation's first commercial oil well was celebrated Aug. 27 in honor of Col. Edwin Drake who brought in his famous well in 1859. The scene was near Titusville, Pa. This was the beginning of the entire oil industry of today.

The anniversary observance included reservicing the original Drake well so that it actually pumped oil again.

No LP-Gas dealer will be sorry to hear that the Arizona tax commission has decided that electric cooperatives financed by the REA are taxable on the same basis as privately owned utilities.

The ruling was based upon the conclusion that cooperatives are directly in competition with other utilities and therefore they should be taxed in like manner.

Are there new fields ahead? Endeavoring to uncover possible new uses for butane and propane—especially during the summer season—the Industry Development Expansion committee of the Texas Butane Dealers Assn. is setting out on a program of hoped-for discovery.

Texas dealers want new fields upon which to try their mettle. It's a good idea and we hope the committee is successful.

It should be, too, with Howard Bunch of San Angelo and C. C. Wight, Jr., of Houston heading up the committee.

In looking for a summer load, we hope the committee will not forget the tremendous volumes of fuel re-

quired for internal combustion engines and tractors, trucks and stationary installations.

National fire prevention week of Oct. 9-15 is an occasion of special significance to LP-Gas dealers. It is an excellent time to emphasize to employes and consumers that the precautions highlighted in that one week should be followed throughout the year.

Last year the American public paid seven hundred and eleven million dollars as a penalty for being careless about fires. George H. Boucher, vice president of the National Board of Fire Underwriters, says "The prime cause of most of the fires is plain carelessness and the misuse of heating and lighting equipment."

Are you a careless operator?

A Chicago manufacturer of LP-Gas ranges—Cribben & Sexton Co.—has announced that their last June sales were 34% greater than during the same period of 1948.

Demand isn't dead. Good salesmanship will revitalize the entire market.

GAMA recently stated that nearly 50% of the 25,770,000 gas ranges in use today are more than 10 years old; 25% are more than 15 years old, and many thousands of stoves are still in use which were manufactured in the early 1900's.

The renewal market for LP-Gas dealers is tremendous so don't pass up the old customers when you are scouting for new ones.

By Ed.

IN L-P GAS

Wherever SAFETY Comes FIRST...



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FOR**

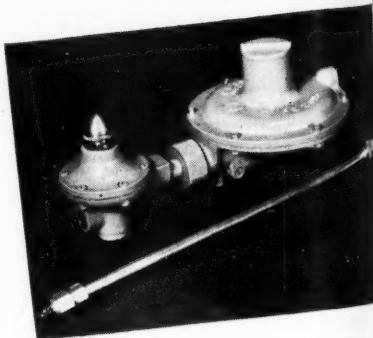
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Again, the Climax engineers have developed something new, an Inner Valve that works against and inside a large orifice thus keeping the ice knocked out making it practically IMPOSSIBLE TO FREEZE THIS REGULATOR even though there be plenty of water in the gas.



Sensational New Automatic Changeover...Type 2015-B

● Here's a regulator that provides uninterrupted gas service for appliances equipped with automatic pilots. Automatically cuts in the reserve cylinder or cylinders when the serving cylinder or cylinders become empty. It is constructed to handle any amount of flow from that of a pilot to 500 cu. ft./hr. . . . as long as you have as much as 25 psi inlet pressure. Exclusive Climax design renders it practically IMPOSSIBLE TO FREEZE IT UP with wet gas! For use on two ICC cylinder systems or multiple cylinder systems with POL hook-up or POL and inverted flare combination hook-up.



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BEYOND THE MAINS



FIRST some thoughts on relationships of the butane-propane industry with local office-holders in your town. A member of the industry was planning a meeting of his LP-Gas association, covering a few counties. It occurred to him that maybe an important elected official of one of the towns in this territory would be an interesting speaker. But the official he had in mind was a busy man, and maybe the bottled gas man had the impression the official regarded himself as a bit of a big shot.

A call on this official settled that. The office-holder was delighted to be asked to talk to the bottled gas men.

There's an obvious advantage in making friends with your local officials, in acquainting them with the industry to help assure that regulation, when it comes, will be constructive.

But here's another thought on the above subject that's just been passed along to us:

Every medium-sized and small town office-holder, if he's smart, is interesting himself today in trends on location of industry.

Will industries move away from his town or will they move into his town?

Industry location is being widely shaken up in this country today, for a number of reasons.

The man who handles LP-Gas can make money, and also can make himself popular, by hitching up with town officials and chamber of commerce men to bring industry to his territory. And the chances are that the availability of good LP-Gas service will encourage the development of various industries in the towns he covers and the surrounding country.

Your town's elected men are naturally loyal to your town and your county. And they have a selfish interest too. If the community runs down, collectable taxes will decrease, and along with them the number of jobs for office-holders and the amount those jobs will pay.

So the thought is to team up and attract industry to your town. Learn as much as possible about industrial applications of the fuel you sell—the full know-how.

Possibly you can help attract quite important industries to your territory and increase your load. Our article last month on S. S. White in Staten Island, New York, gave an idea of how a fairly large organization depends on propane.

But don't forget profit possibilities in very small plants. Any new small machine shop or small foundry that you and your town offi-

cials can persuade to establish itself in your territory can mean greater assessed valuation for the town, and greater load for you. And on this type of operation, electricity can't compete.

It might be worth while to look into whether zoning regulations in your territory are an unnecessary hindrance to development of small and medium sized industries that would add to your load. Perhaps you have investigated this already.

Some of these regulations are archaic. They were written before the advent of such ideal fuels as butane and propane. Industry used to be associated with dirt and unpleasantness. As a result, certain communities, particularly in suburbs of cities, are completely zoned against industry.

If some of the communities you serve have archaic zoning rules, perhaps just a little easing of them will mean money in your pocket, if it will attract industries you can supply with fuel.

These regulations were made when nearly all industry was regarded as undesirable. Today a nicely landscaped plant, with up-to-date design and butane or propane for fuel is a welcome addition to any community, or any county. Your city and county officials and chamber of commerce people are your potential allies in getting this business.

Decentralization is being talked everywhere. It's a good trend to hitch onto to make money. This trend and others point to shifting of industry location in the next few years. If industries move away from a given town, maybe LP-Gas, an ideal fuel, can attract others. In towns that industries are moving into, the LP-Gas man should be on the qui vive to grab the fuel business ahead of a competitive fuel.

Trend is favorable to the LP-Gas business in general. For instance in a booklet called "National Security Factors in Industrial Location" (well worth reading, and you can get it from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. for 15 cents), it's pointed out that it is "strategically desirable to plan industrial expansion so that further urban concentrations of more than 50,000 people may be avoided."

The interest of the LP-Gas man in this decentralization trend is obvious. As industry, particularly defense-related industry, moves away from vulnerable areas into smaller communities and into smaller industrial units, he can watch for opportunities to attract such industry and supply it with fuel.

Meanwhile the areas from which defense industry has moved will have available facilities to which less strategic industry can move. If there is a vacant factory in your county, beyond the mains, it's a challenge to you and your local town officers and chamber of commerce people to find a tenant for it.

Ed Titus

800 PLUMBERS

Call Mutual

By JAMES JOSEPH

THE use of LP-Gas-fired furnaces and torches in large field operations in the plumbing trade is an industrial application that opens avenues of competition that dealers can seize in metropolitan areas where electricity and utility gas have dominated in the past.

An excellent example is the application of LP-Gas in the construction of the Metropolitan Life Insurance Co.'s huge "Parklabrea" housing project in Los Angeles. Mehring & Hanson Co., plumber on the \$40,000,000 job, is using LP-Gas exclusively for its 275 ft. x 75 ft. prefabrication shop on the site.

The problem: The installation of 4500 bathrooms and 2700 kitchen sinks in the 18, 13-story apartment buildings. These totals mean that 350 tons of soil pipe, 450 tons of steel pipe, and 180,000 lbs. of copper will be used on the job. LP-Gas furnaces are melting lead for soil pipe joints; LP-Gas prefab benches are turning out copper plumbing installations; LP-Gas torches are working within the buildings.

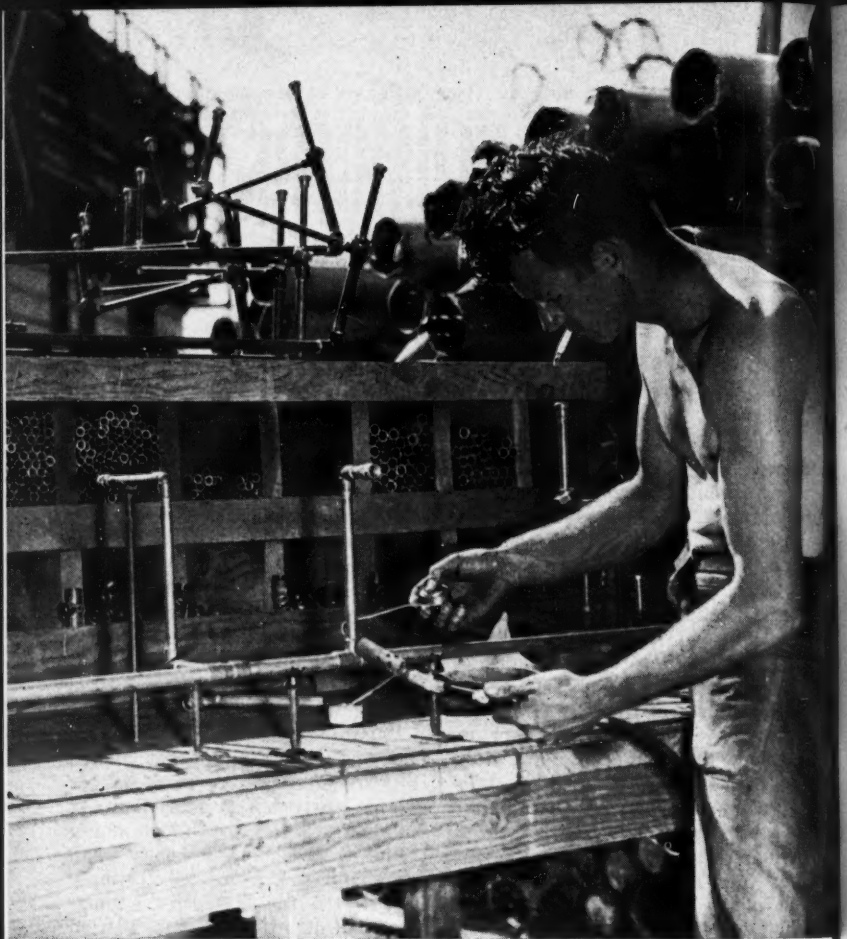
In addition to this one big customer's use of gas during the nine months that Parklabrea is under

construction, its supplier, Mutual Liquid Gas Equipment Co., Inc. (Los Angeles), has sold scores of portable torches, furnaces, and tanks.

Mehring & Hanson is one of 800 plumbing customers who regularly call Mutual for propane equipment and fuel. (There are an estimated 1200 plumbers in the city.)

Plumbing can be an important part of the LP-Gas market; often, it is by-passed in favor of larger volume customer groups. Dealers frequently feel that the plumbing trade, which comprises many small users and few large ones, simply isn't worth the bother of supplying small quantities of gas. Mutual believes otherwise. It has 12,000 tanks out, ranging in size from 6 to 200 lbs.—mostly in the smaller sizes. It got the Mehring & Hanson Parklabrea job because it had worked with the company for many smaller, less lucrative jobs.

In the selling of LP-Gas to plumbers, there is stiff competition from acetylene. No customer



LP-Gas powers prefabricating shops which mass-produce plumbing and electrical installations for giant housing project. Above is one of scores of copper irons in use at a prefab bench.

Industrial sales pointers

is going to switch to LP-Gas unless the advantages it offers can beat the ease of simply ordering a new tank of acetylene. In securing plumbing and other industrial contracts, the following sales pointers will help LP-Gas dealers tell their story:

1. Propane equipment is labor-saving. It can be turned on easily and lights as quickly as your own gas stove at home. There's no priming or pumping necessary. No maintenance is required. Where gasoline clogs with carbon, stops up jets, propane burns clean. If propane equipment fails, your drivers will pick up the equipment and put it into working order.

2. Propane is faster-heating. Natural gas furnaces take 10 to 15 minutes to get into peak operation. Propane units reach their peak heat almost immediately.

3. You can give the plumbing customer better service because your drivers will make weekly or bi-weekly calls, check his fuel supply, and exchange cylinders when needed. A plumber doesn't need to run to the filling station when you give adequate service. If a plumbing foreman says he'll be handling soil pipe next week, you'll know he'll need refills sooner. Soil pipe, being heavier, requires more lead caulking, uses more LP-Gas. Gauge your service by your clients' production schedules.

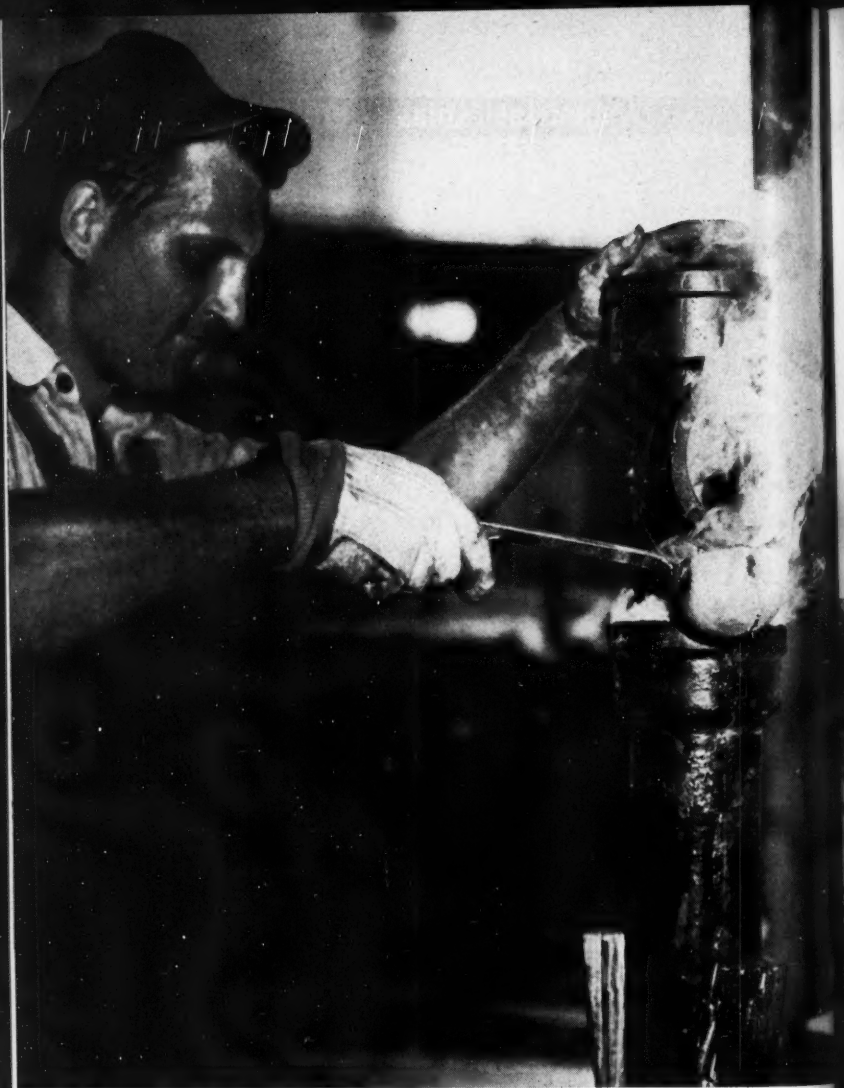
4. A real industrial LP-Gas service route is like a milkman's.

To get the big jobs, you'll need the smaller industrial user first. Most plumbers, for instance, will use two small, 12-lb. tanks. Mutual makes no charges for pickup and delivery; does not charge rental on cylinders unless they remain unused after 60 days, when a 2-cent a day demurrage fee is charged. Gas is sold by the pound—with no scaled prices at Mutual. An industrial customer using 2 pounds of gas pays the same price as the 200-lb. customer.

5. How much LP-Gas does an average plumbing customer use? Mutual, with 800 plumbers on its routes, finds that an average plumbing customer employs 6 master plumbers, working three trucks. Each truck carries two LP-Gas tanks, usually portable, the 6- to 20-lb. size. An average plumbing contractor uses 5 furnaces for melting lead and perhaps 5 melting torches, with various nozzle sizes. Sell him the LP-Gas equipment. He'll need several torches for copper work—some with pointed flames for fine work. If the plumber is working a production run—say a large tract of houses—he'll use 20-lb. tanks or portable 12-lb. sizes.

Furnaces use more gas than torches. One reason is that furnaces are usually left burning; torches are turned off immediately after use.

6. Why is propane cheaper for the industrial user? Show your industrial client that he can burn LP-Gas cheaper than other fuels. That propane, for instance, oper-



Lead caulking takes a lot of heat — which means a lot of LP-Gas.

ates 6 times cheaper than acetylene. Compare the costs of acetylene with a pound of propane—8.62 cu. ft. to the pound.

7. The safety feature in industrial use: Propane isn't as well known industrially as acetylene. Propane hasn't "been around" as long. But propane won't explode on impact, and acetylene may.

8. How big is the industrial field? There's almost no limit:

Typical plumber's furnace for bench work. It will produce approximately 2350 degrees of heat.

paint scraping, weed burning, aerial tent heating for utility company line repairmen; sheet metal firms; the huge electrical industry where soldering irons are used. The industrial field is only waiting for LP-Gas dealer ingenuity. If an industrial user has a problem, a wide-awake LP-Gas dealer will help solve it—with propane or butane. Industrial standby plants are big load balancers in tile manufacturing, ceramics, brickyards, glass manufacturing, cable making.

General Petroleum Corp. Plans Refinery Expansion

General Petroleum Corp. has begun construction on a \$2,250,000 refinery expansion project to turn more surplus heavy fuel oil into other petroleum products in greater demand.

The project will add more than 50% to the ability of the company's Torrance (Calif.) refinery to squeeze out the last valuable light hydrocarbons contained in the fuel oil, leaving only solid coke.

Design engineering for the expansion project is being done by the M. W. Kellogg Co. and it will be constructed by the Bechtel Co. Completion is scheduled for early in 1950.

James H. Thomas Dies of Polio While Traveling in France

James H. Thomas, son of Ross W. Thomas, of Phillips Petroleum Co., Bartlesville, Okla., died on Aug. 12 in Paris, France, of polio. Mr. Thomas was a nephew of H. Emerson Thomas, of Westfield, N. J.

He had been stricken with the disease in Nice, France, while on a student hostel trip. From there he had been rushed to the American Hospital in Paris. He was to have entered Harvard this fall.



Gas.

News

DEALER HIRES "REDDYAS"

Consumers Power Co. Knocks Bottled Gas In New Book Entitled "REDDY KILOWATT vs. BOTTLED GAS"

The Book pictures a terrific prize fight between Reddy & Bottled Gas and ends with Bottled Gas knocked out and "Reddy the Winnah."

Before the book was written Mr. Harold L. Myers was assigned the job by Consumers Power Co. of gathering information as to why Bottled Gas is taking the rural cooking away from them. He and a couple of other Consumers men called on me and took pictures of our little plant on Bedford road. I answered all of his questions about Bottled Gas.

Mr. Myers called on our customers and asked questions as to why they prefer Bottled Gas to Electric cooking. Some told him they prefer to deal with a small concern rather than with a 50 million dollar corporation. Some said their gas stoves were not burned out by electric storms and they had no units to replace. Some had received electric shocks from electric stoves. Some claimed a gas stove will last as long as three electric stoves. Some said they just like the clear blue flame of Bottled Gas cooking. Some told Mr. Myers to tell Consumers Power Co. it was "none of their business why we cook with Bottled Gas."

Maybe Bottled Gas was not knocked out after all for on August 3rd, 1949, Mr. Myers again called on me and asked a lot more questions. I like Harold and enjoyed the visit but frankly, I hadn't realized before how rapidly Bottled Gas is being accepted as the best way to cook beyond the gas mains. Don't tell Harold.

H. E. BABCOCK

Route 6, Bedford Road

Phone 2-7006

Dealer strikes back at giant utility with an advertisement in the Enquirer and News, Battle Creek, Mich., Aug. 14.

DYAS LP-GAS SALESMAN

When Consumers Power Co. started asking its customers questions, H. E. Babcock, Battle Creek, Mich., gas dealer, decided to turn the tables on the big utility. His rebuttal took the shape of the advertisement at left.

Below is shown a "spot" classified ad directing the reader to "See ad in Sunday ENQUIRER AND NEWS for information of Consumers Power Co.'s new book."

By TED SHIELDS

A PUBLICITY-CONSCIOUS American once said: "I don't care what they print about me as long as they spell my name right"—the idea being that any publicity is good publicity as long as it puts your name up where people can see it.

The old adage had application in the LP-Gas industry recently, when H. E. Babcock, a dealer in Battle Creek, Mich., twisted an electric utility attempt to woo away his customers into a selling advertisement for LP-Gas.

Mr. Babcock's chief competition in Battle Creek comes from Consumers Power Co., dispenser of electricity in the area. Consumers, a mammoth corporation, saw fit to go after Mr. Babcock's LP-Gas customers scientifically. After a survey of bottle gas users, the company put out a booklet, posing a fight between "Bottled Gas" and "Reddy Kilowatt." In Consumers book, of course, "Reddy" was an easy winner.

Consumers Power Co. wasn't the winner in its minor altercation with H. E. Babcock, however. He took space as illustrated here to debunk the electric utility's propaganda, and did it in such a gentle, subtle way that it is much more effective than a loud and bitter statement might have been.

Personals

IT'S YOUR MOVE! Get Wolverine Shell Horsehide work shoes. PRESTON'S, 7 East Michigan and Lakeview.

"SUPER, amazing, marvelous," say users of Fina Foam rug and upholstery cleaner. Jos. C. Grant Co.

Hobby Craft Sets \$1.50 up

Extra Molds.....25c

Extra Powder50c

BARKER TOY SHOP

35 Capital Avenue N. E.

FLEE to FLORIDA! Escape extreme heat and bitter cold. One Thousand Jobs for qualified persons. Meals furnished. Also school for young, modern rest home for elderly. For further information address Fellowship Foundation, Box 981, Sanford, Fla.

REV. MYRTLE GAMES, 341 E. Michigan Ave. Phone 2-9320. Spiritual Adviser.

YOUNG gentleman, age 27, wishes to correspond with lady. Write Box L-988 News.

CONSUMERS Power Co. knocks bottled gas in new book. See ad in Sunday Enquirer and News. H. E. Babcock.

5161 BRINGS ONE

YELLOW CAB CO.

CHRISTIAN lady would like to correspond with a respectable gentleman between the age of 65 and 70. Write Box F-900, News.

RESPECTABLE lady, 45, wishes to correspond with respectable gentleman. Write Box T-900, News.

PUBLIC STENOGRAPHER

Typist - Notary Public

400 Huron St. Phone



The above picture of the H. E. Babcock trucks shows (left to right) Mr. and Mrs. H. E. Babcock, Mrs. Alice (Babcock) Church, Mrs. Henry Babcock, Mrs. Marie (Babcock) Rond, Mike Collige, Henry Babcock, and Fred Church. The Babcock operation is a family affair.

Beating the electric salesmen at their own game has been a long and successful habit of Mr. Babcock, with his 18-year-old, family-staffed company. He makes sales of LP-Gas appliances to customers who not only have electric power available, but who switch from electric ranges to LP-Gas. Consumers find that electric installation costs, coupled with burn-outs and shorts, simply are too much.

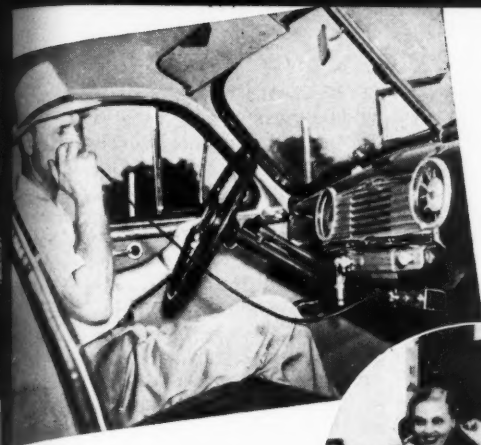
"I often read that dealers can't sell LP-Gas appliances where electricity is available," Mr. Babcock said. "Why, we have replaced several hundred electric ranges with the new LP-Gas stoves just since the war—we had three such cases in one week in August."

It wasn't always that easy. Before electricity became available throughout the Battle Creek area, Mr. Babcock found that people shied away from LP-Gas because

they thought that their chances of getting electric power necessitated using electric appliances, the result of utility propaganda. After electricity was brought in, however, Mr. Babcock found that he had better luck, and that his sales went up instead of down.

That worried the big utility—the fact that this little LP-Gas dealer was getting so much business. Hence the survey and the booklet, to which Mr. Babcock answers:

"I thought it was foolish for the big utility to harass my customers and then to present so many unfair and biased conclusions in its book. Then I decided that if my small operation was that important, I should take advantage of the publicity for LP-Gas. The advertisement was the best way I could show my customers that I felt this way about the utility campaign."



J. E. Allen talking on the radio installed on his car. Insert shows Hazel Wicker, at the home office, on the receiving end of the radio system.



Two-Way Radios Save Money And Speed Up Service

A NUMBER of months ago, J. E. Allen, owner of Allen Butane Gas & Equipment Co., Denton, Texas, decided that he could probably save the cost of an LP-Gas truck by installing 2-way radio equipment that would give him better control over the four trucks he already had in operation. He reasoned that a new truck, equipped, would cost about \$3600 and another 15 cents a mile to operate, not including overhead.

The radio equipment for 4 trucks and company car would cost something less than the cost of the truck. This made it feasible to buy the equipment, which is similar to that put into service by many taxicab companies.

The antenna for the system was placed on top of the city

By CRAIG ESPY

water tower. It extends about 20 feet above this tower. Two-way conversations can be held over a radius of 20 miles between truck driver and the office and between Mr. Allen's car and the office.

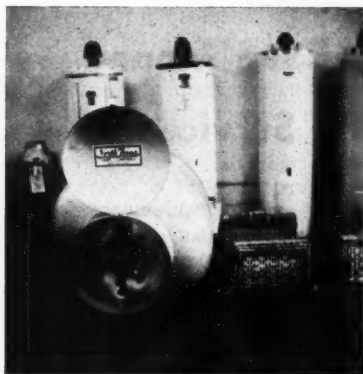
H. R. Pemberton, manager of the company, points out various ways in which the closer contact thus made possible between truck drivers and office has improved service.

"One day," he said, "the manager of a rural school lunch room phoned in an out-of-gas distress call. This really was a distress call because school kids get hungry and lunch was only mid-way in preparation when the call came through.

"By means of the radio, instant contact was made with a truck driver, who happened to be within a block of the school. Almost before the manager got back to the kitchen after making the phone call, the driver was turning gas into the tank."

Another time a driver ran out of range connectors when he was installing a range in a rural home. Many miles of travel and time were saved when he was able to radio in and have the office intercept another driver in the vicinity and secure connectors from that driver.

One amusing thing that happened has caused the company to work out a code message to use when talking about the credit of



Cut-a-way view showing one-third of a 500-gal. North Texas Tank Co. system. H. R. Pemberton finds visitors much interested in this display. He says, "We always lift up the cover of the tank to show and discuss the fittings in detail."



The Roper range is also demonstrated with a cut-a-way model, enabling salesmen to intelligently discuss and point out the installation, type of burner, and how the simmer burner operates on LP-Gas.



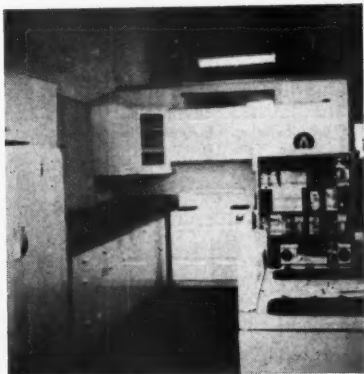
The company displays and sells from the retail sales portfolio produced by Beals Creative Printers. This dramatizes and discusses the general benefits of LP-Gas.



A handy and attractive literature display rack is also used in making a sale. After giving a floor demonstration the salesman can select literature for the prospect to take home.



In a similar manner, a Servel 30-gal. water heater is demonstrated with a cut-away model. The ball-shaped copper tank is shown. Also the location of the burner, its fast recovery quality, type of heat exchanger and installation in general.



The company has prepared in one corner of its showroom a model kitchen so customers can visualize the appliances in their own homes. It is hard for women to resist this and makes it much easier to close a contract.

customers. A driver radioed in from a customer's premises to say that the customer wanted to buy a new appliance. The answer came back that the customer's credit wasn't worth a darn. The customer, who heard the report, promptly paid a substantial amount on her account. Now credit is rated by code letters so that only the driver understands the credit report that is given.

Drivers frequently radio in about road accidents that they come across or see on the highway. After receiving a message of this kind the office phones the sheriff's office and reports the accident.

Hazel Wicker runs the office end of the communication system—and if no wives are reading—'tis said that truck drivers frequently fight off road loneliness by keeping up a running conversation with the office.

Another thing Allen Butane is doing is to really demonstrate its

products and services. And they are finding that this pays.

The store, which is established on the south side of the public square in Denton, is very attractive in exterior and interior. Painted white on the outside and inside and having large plate glass windows and well ordered exhibits, the very appearance of the store suggests that here is a good product and a good service.

The company uses cut-a-way appliances and other methods to dramatize its product.

In July, 1948, the company set 100 500-gallon aboveground tanks. A good effort has been made during the present summer to sell and install carburetion jobs on tractors and trucks to help balance the load. Tanks of 500- to 1000-gallons capacity are being pushed for this service. Over 20 installations of this type (utilizing Ensign equipment) have been installed on farm tractors, milk trucks, and other power units.

Main building of Rapid Thermogas Co.
in Waukesha, Wis.



ELECTRICITY IS DECOY FOR LP-GAS SALES

Freezer Demonstrations Boost Appliance and Equipment Volume

WHEN an LP-Gas dealer puts an electric appliance to work for him, that's news.

J. L. Grigsby did it in Oklahoma late in July, and in one week's time, brought \$6000 worth of appliance sales into the American Butane & Propane Gas Co. located in Oklahoma City.

Here's how the electric appliance did a sales job for its competitive fuel: Recently, Mr. Grigsby, president of the company, added a line of home electric deep freezers, in sizes from six cubic feet to a 134-cubic foot walk-in model. The addition was made be-

cause many of Mr. Grigsby's customers and prospects are served by rural electric power lines—and live in isolated areas wherein a deep freezer is more of a necessity than a luxury. In casting about for promotional ideas to help sell the freezers, Mr. Grigsby saw a chance to do a selling job for all his merchandise.

First, he secured the services of a home economist, Miss Maureen Hickey (of Amana, Iowa), and then sent invitations to all of his LP-Gas customers and prospects on the rural electric lines to attend home freezer demonstration

By O. D. HALL

Name _____

Mailing Address _____

Location _____ Date _____

Check any of the following items which you plan to buy in the future:

<input type="checkbox"/> Gas System	<input type="checkbox"/> Refrigerator
<input type="checkbox"/> Pump	<input type="checkbox"/> Water Softener
<input type="checkbox"/> Hot Water Heater	<input type="checkbox"/> Plumbing
<input type="checkbox"/> Range	<input type="checkbox"/> HOME FREEZER

Prospects checked such items on this card as they planned to buy in the future—and sales rolled in.



A series of educational meetings like this one by the American Butane & Propane Gas Co. of Oklahoma City, brought in \$6000 worth of sales of LP-Gas appliances and equipment. J. L. Grigsby, president of the company, stands in front of the freezer.

talks at Deer Creek, Minco, Union City, and at his showrooms in Oklahoma City. Door prizes were offered, and those who attended the meetings were given cartons of ice cream.

After the demonstrations, questions were invited and salesmen distributed pencils and form-cards with space provided for the recipient to list the appliance needs in his home. Although the prospects had attended the meetings with their attention focused on the electric-fuel home freezers, scores of them indicated a desire for one or more LP-Gas appliances. In fact, one of Mr. Grigsby's salesmen sold \$1800 worth of gas equipment to one customer as the result of the promotion and the form-card.

In one week, the LP-Gas system and appliance sales that could be traced directly to the meetings, the demonstration, the cards (and the ice cream) totaled \$6000.

Help Balance Summer Sales

Because of these sales in a difficult summer period, Mr. Grigsby said, "We are doing a lot toward balancing our summer load and building summer revenue up to winter standards. We shall continue the meetings throughout our area with this goal in mind."

To persons who questioned the actions of an LP-Gas dealer in utilizing his competitor's product to sell his own, Mr. Grigsby answers: "Most of my customers have rural electric lines on their farms. These people are progressive and interested in furnishing their homes with every available

modern convenience. If they are interested in adding an electric appliance to those operated on LP-Gas in their homes, why shouldn't we supply them? It increases our sales volume and gives us valuable contacts with rural homes where we can place LP-Gas systems and appliances."

Bottled Gas Found Ideal For Anti-Pest Uses in Scotland

"Use of "calor" gas has been adopted in the new and modern Boots Pure Drugs Co., Ltd., factory at Airdrie, Scotland, to fire a battery of three special 12-ft. long fumigators, used to destroy insect pests in raw materials.

Some imported raw materials, such as sennapods, may contain eggs or larvae which could, if ignored, completely destroy the purity of the product. The fumigators have roller conveyors operating on the floor and suitably arranged bales of raw material are fed into the entire capacity of the fumigator, using the floor roller system.

The fumigators are kept warm, using bottled gas, and raised under vacuum of 26-inch approximation until a steady heat is achieved at the required temperature.

A known quantity of the fumigant—which is in this case ethylene oxide—is introduced and the contents subjected to fumigation for a period of from 12 to 18 hours. The fumigators are again brought under vacuum, exhausted out, washed, cleaned, over as many as three cycles until the fumigant has been completely eliminated.

This use of bottled gas is a further demonstration of the system in the new industrial estate where the lack of town gas demands some such system.

"An aggressive program of appliance sales"



ATTRACT WALK-IN CUSTOMERS

KEEP AFTER THE PROSPECT



DEMONSTRATE



FOLLOW EVERY LEAD WITHIN 24 HOURS



FREE GAS FOR CUSTOMER SALES TIPS



A PROMOTION PIECE EVERY MONTH
Dalton

STEP-BY-STEP PLANNING BUILDS LIVE MARKET

SEEING a need for a well-planned, low-cost systematic sales plan, G. G. Weakland, president of Jefferson Gas & Electric Co., Lakewood, Colo., applied his promotion ideas to the Denver suburb, second largest population center in the state. He developed an aggressive 4-point program of appliance sales that in a few years built a gas market amounting to more than 700 customers.

Step 1: First he built the proper background for appliance "walk-in" sales—a show place for the more than 15,000 automobiles that pass his location daily on busy West Colfax avenue. His display room has handsome knotty-pine walls, two huge windows in which rows of appliances stand in a brilliant flood of light. In addition, front-of-the-store parking space is made available for traffic-conscious drivers-by. The result is a heavy stream of walk-in prospects.

Step 2: Driver-salesmen reach every prospect on their 20 routes at least once each month with a promotion piece of some kind.

Jefferson's drivers carry complete kits of promotion material with them on their daily service routes which they distribute to customers and prospects between their stops. It's a personalized direct-mail campaign that lets the customer-prospect know he's more than a name on a mailing list. The promotions are aimed at either new installation, replacement or modernization, according to the type of dwelling involved. In addition to the promotion material provided Mr. Weakland by Tappan, Ruud, Servel and other companies, the kits given Jefferson's double-duty drivers include personalized news letters, tips on how to use LP-Gas appliances, and invitations to telephone or come into the store for additional information. An effective novelty in direct mail advertising netting many prospects per season is a paper "handbag" in bright red, with looped handle, which opens to disclose folded let-

By GENE C. CREIGHTON



One of the attractive cylinder delivery trucks of Jefferson Gas & Electric Co., Lakewood, Colo.

ters within. These contain promotions on refrigerators, ranges, water heaters, floor furnaces, space heaters, etc., and hung over the kitchen or front doorknob, provide a pleasant surprise for the housewife. Mr. Weakland can trace many sale of LP-Gas refrigerators and ranges, and conversions to LP-Gas of kerosene, gasoline ranges and refrigerators to these novelties.

Step 3: Customer-salesmen who deliver the goods. For every tip on friends or relatives who may be sold new home appliances, Mr.

Weakland offers to LP-Gas users a reward of a cylinder of free gas. Mr. Weakland made this offer originally shortly after V-J Day when appliances again became available, and has found it consistently profitable ever since. "We have some regular customers on the books who have been responsible for as many as a dozen sales to their friends," the dealer said, "and who can be depended upon to keep a watchful eye out for potential prospects. Delivery of a free gas cylinder as expression of our thanks is well known

through the two counties we serve, with the result that we have scores of tips coming in each month well worth a follow-up."

Mr. Weakland's final sales-getting slant is concerned with the actual, personal sales job. To extract maximum results from evening sales calls and prospecting tours in the territory, Step 4 sets down three principles:

(a) Follow up every lead within 24 hours if possible.

(b) Give an actual demonstration, not a sales talk.

(c) Keep after the prospect if no sale is forthcoming immediately.

"These three steps are indispensable to a worthwhile appliance sales volume," Mr. Weakland says, "particularly the demonstration of actually operating appliances, and the repeat calls on unsold prospects. We've found that calling back two or three times gets us many sales which otherwise might never occur. They capitalize on unexpected income which the prospect may receive, or disgust with a balky stove or refrigerator, or an unpleasant experience with spilled liquid fuels, etc. If we keep at the prospect, the chances are we'll make the sale."

All follow-ups are made by the store manager-salesman, Mr. Weakland, or by driver-salesmen, if time permits in the latter case. "Our personalized direct mail doesn't tie up a lot of the driver's time, while at the same time the prospect knows he is on one of our routes, and can conveniently be serviced with fuel along with his neighbors."

When the prospect telephones in, a salesman goes after husband and wife, in most instances making evening appointments when both can be brought to the store together where appliances in actual operation make sales more sure.

Tanker Will Aid Distribution Of British LP-Gas

Bulk transportation of butane is planned in Britain in view of the expanding production of the gas, because of the extension of refining and other activities there. The oil tanker "Frasca" has been given extensive refitting and conversion to carry butane gas in bulk and is probably the first unit of this type in Great Britain.

The tank deck has been renewed and independent butane tanks fitted inside the main cargo tank. An entirely new pumping and piping system was necessary and this has been installed alongside the older oil system, since it is also intended to carry oil.

The super-structure and accommodations have been completely rebuilt and a new system of ventilation installed. As a result of this overhaul the "Frasca" will go into commission for the bulk transportation of butane, servicing depots in various parts of the country.

To date, transportation of butane has been largely by truck delivery. Essential defect in this system is the scarcity of suitable steel, and the high cost of handling individual containers. Against this there is an admitted problem involved in the creation of storage depots should the present system of road transportation of individual holders be abandoned.



It Takes LP-GAS For GOOD Mountain-top Service

LP-Gas is everywhere—or, if it isn't, it can go there. Here it's shown at work on Pikes Peak.

WHEN you are operating on top of the most famous peak in North America, where the Storm King holds court a great portion of the year, you need reliability and efficiency plus in both your staff and your equipment.

Mrs. Helen Stewart and Ray Burton, concessionaires at the Summit House at the end of the world famous Cog Road on top of Pikes Peak, have had many years of experience catering to the comfort and convenience of tourists who make the pilgrimage up this famous mountain. They select only the most reliable, efficient and courteous young people to staff their operations at the Cog Road Summit House. Likewise, they select only the best in equipment.

Where rocks and sky merge. The Cog Road Summit House, Pikes Peak, visited annually by 200,000 nature lovers.

Pikes Peak is 14,110 feet above sea level and approximately 8000 feet above the city of Colorado Springs, which nestles at its foot. For many years the famous Cog Road has carried passengers to the top of the peak from where they can see for hundreds of miles in every direction. In more recent years, an automobile highway has been constructed to the top of the peak. Every year more than 200,000 visitors reach the top of the peak to gaze in awe at the majestic mountain



By J. ARTHUR THOMPSON

Eaton Metal Products Co., Denver, Colorado

panorama spread before them. They come by private auto, bus and Cog Road train.

Just before the start of the 1949 tourist season, new LP-Gas equipment was installed to increase efficiency of operations by Ranchogas, Inc., of Colorado Springs.

The basis of the new equipment was a new Eaton gas system of 1199-gallon capacity, manufactured by Eaton Metal Products Co., of Denver. The installation of this system offered some interesting problems. Frequent and very severe lightning storms make it imperative that everything be thoroughly grounded. As the top of the peak is largely a mass of huge boulders, this offered a tough problem, but one which was conquered by R. Y. (Bob) Mills, president of Ranchogas and his staff.

Another problem encountered was the altitude and rarified atmosphere. Working at 14,000 feet is an entirely different matter than working at sea level or medium altitudes. There are

Gas beyond the mains—and a good two miles above—is served from this 1199-gal. system at summit of Pikes Peak in Colorado.



R. Y. (Bob) Mills, president of Ranchogas, Inc., at his desk. Mr. Mills was also president of the Colorado LP-Gas Assn. in 1948-1949.

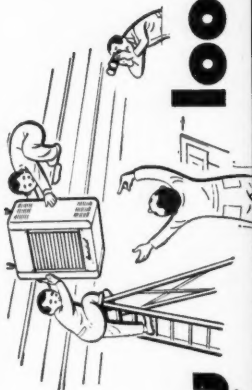
very few LP-Gas installations at altitudes equaling the one on Pikes Peak.

Still another problem was the long haul up the highway to the top of the peak. (The Cog Road does not carry freight.)

The connected load on the system consists of the following:

- 4—85,000 Btu space heaters.
- 3—500,000 Btu space heaters.
- 1—"Magic Chef" stainless steel heavy duty range.
- 1—100-gallon automatic hot water heater.
- 2—Servel LP-Gas refrigerators.
- 1—Battery of coffee urns.
- 2—Fry Grills.
- 1—Deep Fat Fryer.

The last named item is used to make fresh, tasty doughnuts for the customers. Doughnuts shipped up from Colorado Springs start out puffy, light and tasty as could be



Anyway you look at it...

**THE NEW
IMPROVED**

**UNIT
HEATERS**

Samtrol GAS-FIRED *have everything*

★
NEW SMART
APPEARANCE

★
NEW DESIGN
FEATURES

★
PROVEN
PERFORMANCE

★
LONG LIFE
CONSTRUCTION

★
EASY
SERVICABILITY

Field engineering helped build Janitrol's new, advanced line of Unit Heaters.

Valuable user performance data and field service information were correlated over a three year period as a guide to determine the most practical improvements required for better industrial and commercial heating. Then the actual design and construction improvements in the new Janitrol Unit Heater line became the responsibility of Surface Combustion engineering staff.

This policy of analyzing all practical heating requirements first has resulted in equipment with far greater user

acceptance. So, you can count on Janitrol for not only advanced design and efficiency but also for practical, easy maintenance under all kinds of rugged operating conditions.

Because more and more Janitrol Unit Heaters are being installed by retailers, in places of amusement, restaurants, and all kinds of service businesses, special attention was given to smart appearance and compactness.

In most cases Janitrols will be found to be more compact and to provide more headroom than other equipment. Write today for complete specifications and installation data.

A FEW OF JANITROL'S MANY OUTSTANDING FEATURES

- ★ New Cartridge Type Ribbon Burners: Designed for easy removal and interchangeability for different type gases, special chrome alloy steel for high temperature and corrosion resistance. Separate burners for each heat exchanger make for high efficiency and even heat distribution.
- ★ Improved, Long-Life Tubular Heat Exchangers: High efficiency of Janitrol's unique design makes possible extreme compactness. Interior suspended alloy steel turbulators accelerate heat transfer. Improved vertical design mini-
- mizes dust and dirt collection, contributes to better air flow.
- ★ Improved, Automatic Pilot: New actuating lever and switch design assures long life, positive operation. While pilot is more positively positioned, assembly can be removed in a few seconds.
- ★ Combination Fan and Limit Control: Only Janitrol provides dual overheat safeguard as standard equipment, in case of stuck gas valve fan continues to dissipate heat preventing damage to unit or adjacent area.
- ★ Motor and Fan Assembly: Resilient mountings minimize vibration and noise. Overlapping blade type fans provide maximum air velocity with quiet operation. Direct-a-Flow housing provides uniform airflow over entire unit.
- ★ Smart, Quality Appearance: Smooth, dark grey hammerloid baked enamel finish on steel casing fits unobtrusively in most surroundings. Bottom panel is hinged for opening without removal for inspection of burners and bottom of heat exchangers.

SURFACE COMBUSTION CORPORATION • TOLEDO 1, OHIO

imagined, but by the time they arrive in the rarified atmosphere of the summit, they have become soggy, insipid and decidedly unattractive. However, doughnuts made right on the peak are acclimated when they come out of the "Frialator," and they are served up to the hungry customers, hot, tasty and attractive.

Fall Fuel for Spring Use

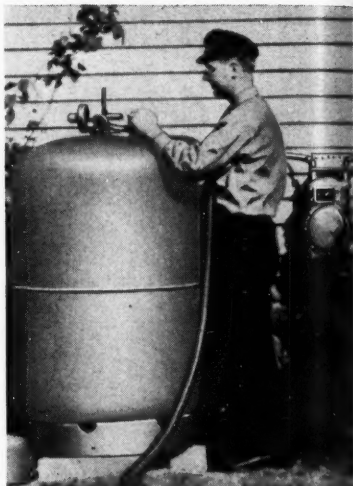
Dependable fuel deliveries are absolutely imperative for such a system as this. For this service, Ranchogas, Inc., uses a GMC (cab over engine) truck with a 1200-gallon servicing unit. The Summit House system is filled at the end of the summer season to insure an adequate fuel supply the following June. Many times the Cog Road is operating before the huge snow drifts of winter have been bucked out of the highway.

The system is providing the concessionaires with a dependable, inexpensive, clean and convenient fuel supply. It is doing the four jobs of space heating, water heating, cooking and refrigeration in an efficient and dependable fashion, in spite of the many difficulties to be encountered several thousand feet above timberline.

By this installation, Ranchogas, Inc., has successfully demonstrated their slogan: "Enjoy the Convenience of Gas—Anywhere."

He's a "Cover-Boy," All Right But Where's His Fan Mail?

In the past two years, a "Philgas" serviceman named Otto Flowers has become as familiar to LP-Gasmen as the cover girls on the pages of the national consumer magazines. Mr. Flowers is, in fact, a "cover boy." His is the picture on the cover of some

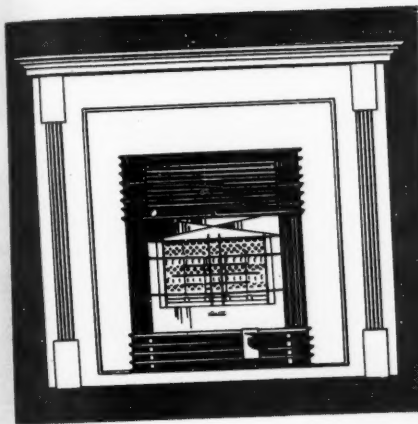


This picture of Otto Flowers has literally gone all over the world.

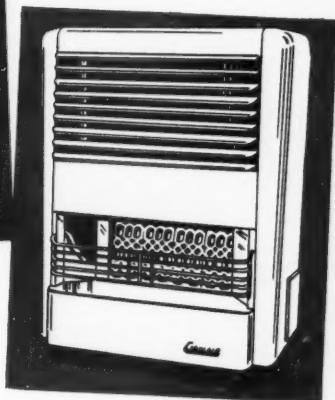
50,000 copies of BUTANE-PROPANE News notebooks and press clipping folders which have been distributed to national and regional LP-Gas conventions throughout the U. S. Several years previously his picture appeared inside the same magazines in a special story about his work.

Mr. Flowers, no longer an employee of Phillips Petroleum Co., was with that company from 1929 to 1944. He joined Phillips at a time when the Philgas division (and the industry) was in its infancy, and was employed at Pontiac, Mich., delivering gas to customers.

Even now, when he is no longer associated with the company, he still continues as a familiar figure to the industry, endlessly filling the X-type cylinder (450-lb. propane capacity)—on the black-and-orange cover of the notebooks and folders given to gasmen by BUTANE-PROPANE News.



CIRKL AIR
BY FOLSOM



These Cirklair Gas Heaters Bring You Profits Because They Sell

Cirklair Sham Mantels and Cirklair Cabinet Heaters are staple items, and have been for years.

First because they have the Folsom pioneered and perfected principles of circulation of warm air. Principles so advanced and so popular that others have endeavored to imitate them.



We make probably the most complete line of gas heaters approved by A.G.A. for natural, manufactured, mixed or liquefied petroleum gases.

Home owners prefer Cirklair Heaters because with these heaters they get the most efficient heating service, with the lowest fuel cost and with modern styling. Both the Cirklair Cool Cabinet Heaters and the Cirklair Heaters in the Cirklair Sham Mantels have lighter pilots as standard equipment. May be had with full automatic safety pilot and temperature control as optional equipment. Motorized blower attachment available. The facts about Cirklair Gas Heaters are important to your continuous gas heater sales and profits.

Write for Them Today.

THE FOLSOM COMPANY

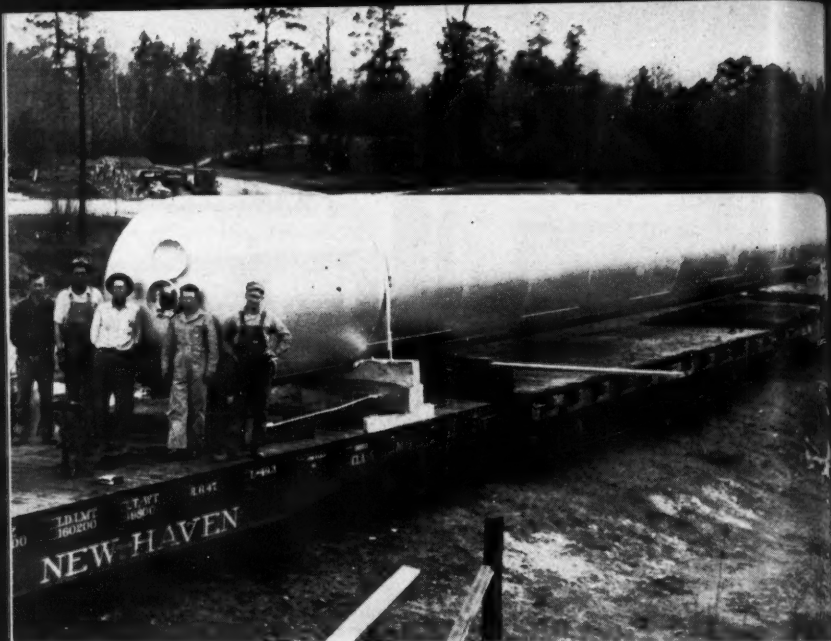
3104 OAK LANE

DALLAS 10, TEXAS

Cirklair Cool Cabinet Circulators . . . Vented Circulators . . . Console Circulators . . . Enclosed Circulators . . . Bathroom Heaters . . . Fireplace Insets . . . Furniture Insets . . . Radiant Heaters Lowboys . . . Cherri-Glo Clay Back Radiant Heaters . . . Enclosed Circulators . . . Radiant Circulators . . . Enclosed Bath Heaters

OCTOBER — 1949

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New storage tank en route to Coburn & James, Benton, Ark.

One Appliance Sale Can Be Wedge For an All-Gas Home

By ZOE JOHNSON

IN the green Ozark foothills of Saline county, Ark., is the prosperous town of Benton, headquarters for the firmly established butane company of Coburn & James. Benton, a city of approximately 6000 population, lies half way between Little Rock and Hot Springs.

Since Benton is serviced by public utilities, Coburn & James are dependent upon the surrounding

rural population for the bulk of their business. Their activities are centered in Saline county, with a population of approximately 15,000; and the fringes of the adjoining counties within a radius of 35 miles of their store. They prefer to limit their activities to that ra-

dus, for Mr. James believes that any haul over 35 miles is a losing proposition on gas deliveries, and gas is the most profitable phase of their business.

Through sound selling and honest dealing they are making new customers and holding their old ones. Their motto is, "Take on only as many customers as you can service properly."

Coy Coburn and F. M. James organized their business in 1946. Both Mr. Coburn and Mr. James had years of experience in business as salesmen for merchandising concerns in Benton before they began their partnership.

They began taking orders for the installation of butane systems on promises from the manufacturers of immediate delivery of both tanks and pipe. Nineteen customer orders were taken in a surprisingly short space of time, and each order was accompanied by a down payment of \$100. Then came the steel strikes and other delays. Because the tanks were six months late in delivery from the manufacturers, Coburn & James had to hand back to their impatient customers every \$100 down payment except one. The man who left his down payment with them was the first man to have his system installed. This installation brought back most of the other customers, and new customers have been added since until they now have over 500 installations to their credit.

Realizing that the complete modernizing of a farm home takes quite an outlay of money, the open-

ing wedge for a butane installation is to determine the prospect's wishes regarding home improvements. If a water system is of first importance to the prospect, then a Dayton pump is installed. Cold running water soon leads to hot and cold running water, and so a butane hot water heater is the next step on the program.

The fuel for the hot water heater is supplied by portable propane cylinders of limited capacity, which are brought in for refilling by the customer. The installation of the hot water heater is usually followed by that of a modern LP-Gas kitchen range, for the propane cylinders are of sufficient capacity for the operation of both a range and water heater.

The Fuel Sells Itself

Once a customer has known the convenience of this kitchen service there is no turning back. The cleanliness, convenience and economy of butane gas has proven itself to the customer's satisfaction, and it is only logical that it should be considered for heating purposes as well. The installation of a large, underground storage tank soon follows, with floor furnace or space heaters; and so another satisfied customer is both cooking and heating with gas. It is then only a matter of time until the hot and cold running water system is expanded to a complete bath installation, and the rural home owner is enjoying all modern conveniences.

Neighboring installations soon follow, for it is the old story of



Coy Coburn (left) and F. M. James in their Benton, Ark., headquarters.

keeping up with the Joneses, and one sale soon leads to another. Thus, the hot and cold water system with a propane cylinder is the starting point for many complete installations in every community that is served.

Most installations are made through FHA financing. Farmers in the Benton territory have no trouble in making their monthly payments. The corn and cotton fields of this region are gone, but in their place herds of cattle graze on the lush pasture land. Poultry farms dot the countryside. Benton has lately put in a modern milk pasteurizing plant. A farmer with a few good milk cows and a poultry yard can draw monthly checks from \$90 to \$175 and has no trouble meeting his monthly payments.

Coburn & James have noted the increasing trend to larger tank installations during the past year,

and do not hesitate to point out the many advantages of adequate storage capacity to their prospects. When they first entered the butane business, the average installation comprised either the 150 gallon or 250 gallon tank. Short supplies of butane gas from the refineries during the winter months because of inadequate storage and transportation facilities soon pointed out the advantages of sufficient capacity to insure an ample supply during the winter months.

When these facts are explained to the prospect, it invariably results in the sale of a tank of larger capacity. Today, the average installation is in the 450 - gallon size. This capacity easily carries the customer over a spell of cold weather without worry, and also solves the Coburn and James problem of tank refills.

In addition to the present 500

customers, the firm anticipates installing at least 25 new systems this fall. Beginning with June, they are installing an average of two kitchen water systems a week. Approximately three cents on every gallon of gas is required for operating expense. Most gas is shipped in by rail. Last March a bulk storage tank of 30,000 gallons capacity was installed, which now gives a total reserve storage capacity of 45,000 gallons.

The original capital investment was about \$5,000, which has since grown to an inventory of approximately \$18,000. The company carries a complete line of nationally known appliances, and is firmly established as plumbing and heating contractors in its community. Advertisements are regularly carried on the radio and on the local screens, while local papers carry display advertising.

One salesman is kept on the road all the time. Nothing, it is stated, brings in business like the personal contact of a salesman calling at the home. People in the rural areas are glad to have a salesman call, especially if he has an interest in their particular problem of home modernizing.

There is still a steady demand for butane appliances, but the peak of demand has passed for butane systems, except in new construction. Short hauls and honest and efficient service are the factors that contribute to the steady increase in this business, and to the exceptional growth of the firm during the past few years.

Texas Credit-Sales Clinic Ends Successful Tour

The last session of the Texas Butane Dealers Assn. program of credit sales clinics was held in Alpine on Aug. 11-12. Twenty Texas towns were covered since the first clinic began April 18.

The instructions, made possible by cooperation of the University of Texas extension division with the association, covered merchandising, sales practices, and credit procedures.

Sterling Speake and Lester Grainge, members of the University extension staff, lectured at the clinics. Mr. Speake is a well-known authority in credit and collection while Mr. Grainge has had wide experience in the merchandising field.

According to W. R. McCright, president of the Texas association, the value of the clinic has already been seen and as time goes on the success of it will become more evident in the practical application of the information presented.

Louisiana School Plants Being Modernized

Virtual completion of the statewide program of checking and modernizing butane-propane installations in more than 300 Louisiana schools was announced from Baton Rouge recently by K. E. Jones, director of the State Liquefied Petroleum Gas Commission.

Mr. Jones reported completion of a survey covering 367 schools, mostly rural, which are used by more than 98,000 pupils, more than 2000 teachers and some 1000 maintenance and other personnel.

Actual work of modernizing—bringing all installations up to latest safety standards—is nearly completed, he reported, and should be finished by or shortly after the time schools open.

Public Acceptance, Ample Supply and Lower Cost of LP-Gas Are Worrying

ELECTRICAL COMPETITORS

MY approach to this subject is based on observations and studies of suppliers' and jobbers' activities and an endeavor to interpret certain marketing trends here on the Pacific Coast.

Substantial volumes of LP-Gas are used in the manufacture of gasoline, in the chemical field as raw material, and as industrial fuel. Sizable quantities are being sold as a raw material for manufactured gas and as a supplement to pipe line natural gas through the utility companies.

The really prize portion of the total market, however, is in the domestic field and that is what interests most of us here today.

Nearly two-thirds of all LP-Gas sold on the Pacific Coast is for domestic fuel. I believe you will be interested in viewing graphically how its use for this purpose has grown in the relatively short span of 15 years.



C. B. MacGLASHAN

There was a strong, steady growth in demand from 1933 until 1939. From then on, the increase has been phenomenal—about doubling in volume every two years from 1939 to 1942, and every three years thereafter.

It surely is a tremendous jump from the late 1920's when there were only about three marketers of domestic LP-Gas on the Pacific Coast and the distribution was pretty much on a direct basis from refiner to consumer, and the product was handled exclusively in 90- to 100-pound cylinders and called "bottled gas."

The figures would seem to prove the ever-growing acceptance of LP-Gas, an acceptance that is without parallel in any other branch of the petroleum business.

From recent contacts it would appear that jobbers are facing the future with optimism and preparing themselves to secure a greater share of the consumer dollar.

By C. B. MacGLASHAN

Manager, Fuel Oil Department, Shell Oil Co., Inc., San Francisco.

A miracle IS BORN
 an astounding new principle of
NORDSTROM VALVE lubrication

AN
energizable
LUBRICANT

to seal Nordstrom valves automatically, continuously

Fully automatic lubrication for Nordstrom valves is here! Introduction of Rockwell *Hypermatic* lubricant marks the greatest advancement in the valve industry since the invention of Nordstrom valves 30 years ago. *Hypermatic* is the first and only genuine automatic lubricant. Now you can cut your valve maintenance cost because your lubrication crew need devote only 1/10, 1/20, 1/50, up to 1/100 as much time to re-lubri-

cation. Your Nordstrom valves will give better service with less cost because each one will be automatically maintained in a condition of 100% lubrication, even in event of considerable neglect. Leakage will be prevented because *Hypermatic* both seals and lubricates with split-second action and positive certainty. Almost twice as much *Hypermatic* can be compressed into valve's lubricant chambers.

NOTHING TO BUY EXCEPT THE LUBRICANT—Instead of resorting to the use of extraneous devices or endeavoring to use variable line pressure, you can have automatic lubrication merely by switching to *Hypermatic*.



AUTOMATIC LUBRICATION

Tried, tested, proved in laboratory, field and plant. Keeps Nordstrom valves in state of perfect lubrication.

Switch to *Hypermatic*—please order now



NORDSTROM VALVE DIVISION—ROCKWELL MANUFACTURING CO.
 400 North Lexington Avenue • Pittsburgh 8, Pennsylvania
 Atlanta, Boston, Chicago, Columbus, Houston, Kansas City, Los Angeles,
 New York, Pittsburgh, San Francisco, Seattle, Tulsa...and leading Supply



SELF-SEALING

SELF-ACTING

SELF-THINKING

CONTINUOUS PRESSURE

SPLIT-SECOND ACTION

MAN-HOURS SAVED

TWICE THE STORAGE

MULTIPLIED VALVE LIFE

GALLING ELIMINATED

SAVES LUBRICANT

IT COMPRESSES

Like the action of a door-check, *Hypermatic* compresses to a fraction of its volume when lubricant is energized.

IT EXPANDS

When the valve needs lubricant to seal a leak, *Hypermatic* expands and seals the valve seat. It feeds into any void instantly.

Mail this coupon for *HYPERMATIC* Bulletin

Nordstrom Valve Division, Dept. 27
 Rockwell Manufacturing Co.
 400 N. Lexington Ave.
 Pittsburgh 8, Pa.
 Send *Hypermatic* Bulletin & Prices

Name _____
 Address _____
 City _____ Zo. _____ State _____

MANY LP-GAS DEALERS WHO WORRY about electric competition will be surprised that the electrical industry is even more concerned over the inroads butane and propane have made in the rural areas which power companies and co-ops have come to deem their very own, sacred ground.

When the Business Development Section of the Pacific Coast Electrical Assn. convened this year, one of the papers read was that of C. B. MacGlashan, manager of the fuel oil department of Shell Oil Co., Inc., San Francisco.

The paper covered the subject of "Liquefied Petroleum Gas—Its Progress on the Pacific Coast," and it was an eye-opener to the electric boys who listened, as it left no doubts in their minds that our industry is firmly entrenched in the public mind and vigorously progressing toward wider coverage. They were also told how definitely LP-Gas can beat electricity in cost to consumers and its better safety record.

Many statistics showing growth and facts concerning methods of distribution of LP-Gas have been omitted in this BUTANE-PROPANE *News* digest of Mr. MacGlashan's paper because they are of general knowledge to industry members, but dealers will find the remainder of the article as interesting as the electric group did.—Editor.

Many jobbers are reinvesting their earnings in new and expanding plant facilities, either remodeling or building new show rooms—putting in adequate stocks of burners, appliances and parts, obtaining new delivery equipment, and generally improving their service and delivery departments to better serve the customer.

They expect additional business to come from two different and principal sources: One from entirely new outlets—that is the new home—and the other from the increased usage by consumers who already have had LP-Gas installed for some time.

With a product having the ac-

ceptance of LP-Gas and with the growing demand for domestic fuel, plus the expanding volume in the chemical and industrial fields and additional requirements in the utility classification, the question naturally arises in your minds as to whether or not the petroleum industry is capable of supplying this increased potential demand. The answer is definitely "yes," and for a long time to come.

As of Jan. 1, 1949, there were 39 absorption and cycling plants in California producing LP-Gas and having 50% greater capacity than previously, due to completed expansions. Since Jan. 1, several new plants have either installed new facilities to recover LP-Gas or to increase present production.

One plant we know of is capable of producing 58,000 gallons of propane per day—the equivalent of a three-quarter million kilowatt-hour cooking load. Saying this another way—at an average of 120 kw-hr or nine gallons of LP-Gas per month per family, one day's production from this single plant can supply 6500 families with fuel to cook with for one month.

Although these comments have referred to natural gasoline plants, somewhat similar conditions exist at refineries; either new facilities can be installed or present ones can be expanded to recover additional LP-Gas.

I think there can be no question of the petroleum industry's ability to meet the demand for many years to come. The many independent

studies which have been made all reach the same conclusion, that supply exceeds industry demand by a comfortable margin.

Certainly all this costs quite a lot of money; not only for the producers and refiners but for the carrier companies and the jobbers too. But what facilities for any rapidly expanding industry do not take plenty of money, especially in these times? Take your own business! According to all published accounts, the expenditures for new facilities by the electric industry have already reached "Amos and Andy" proportions and in a large segment of our Pacific Coast region the experts say the available electric energy is away below current demands for even domestic use.

Maybe No Juice—Always Gas

And, during summer periods when hydro-electric plants are sometimes short of water, such as this past summer, there is an abundance of LP-Gas because that is the time demands for LP-Gas are at their lowest. That's a good point to keep in mind when your salesmen endeavor to sell the housewife the idea that all her troubles will vanish if she will just sign on the dotted line.

Which brings us down to the competitive rates between electricity and LP-Gas. For this comparison, I have used Rate Schedule D6 of the Pacific Gas and Electric Co., San Francisco, which I understand to be applicable in rural northern California. It has further been assumed that 120 kw-hr per month are required for lighting by the

average family and that the 60c per month service charge will be included in the lighting cost.

Granting these assumptions, and using the time proven energy ratios for gas versus electricity of 2 to 1 for domestic cooking and 1.4 to 1 for water heating, about 9 gallons of LP-Gas are equivalent to 120 kw-hr of electricity for cooking, and 15.7 gallons are equivalent to 300 kw-hr for water heating, or a total of 24.7 gallons is equal to 420 kw-hr for a month's supply of energy.

Over a large part of the Pacific Coast area, where private enterprise is producing electricity in sufficient quantities to be generally available, 420 kw-hr per month will cost between \$5.25 and \$6. The equivalent energy produced from an equal amount of LP-Gas will indicate a price from 21 cents to 24 cents per gallon. (See Fig. 1.)

In these same areas the price of "bottled gas" is as high, if not higher. But for deliveries in bulk by tank truck into tanks located on the consumer's premises, the price is generally well below these figures, even for deliveries as small as 100 gallons. And, it is the local jobber, by means of bulk deliveries and good services, who is accounting for the rapid growth of the domestic LP-Gas business.

At this stage, I suppose some of you would like to have me make some predictions as to the future trend in prices for LP-Gas. I would not care to make any specific statements but will make these observations from which you may draw your own conclusions.

Aside from the previous comments covering the anticipated expansion for additional production

FIG. 1

COMPARISON of COSTS of COOKING AND WATER HEATING

ELECTRICITY VS PROPANE	
Cooking	Equivalent Quantity of Propane
80 KWH at 23¢ = \$ 1.84	
40 KWH at 1.0¢ = \$.40	
<u>\$2.24</u>	$120 \times 3415 \times 2 = 9.0 \text{ Gals.}$
	<u>91.500</u>
Water Heating	
300 KWH at 1.0¢ = \$ 3.00	$300 \times 3415 \times 1.4 = 15.7 \text{ Gals.}$
<u>Total</u>	<u>91.500</u>
\$5.24	24.7 Gals.
Break Even Cost - \$5.24 = 21.2¢ per Gallon or 5.0¢ per lb.	
<u>24.7 Gals.</u>	

in California, there is currently an industry surplus in West Texas, estimated at 500 tank cars per day. This amounts to 5,000,000 gallons daily, which is a lot of gas in anybody's backyard.

This surplus was brought about by the enforcement of a ruling by the Texas Railroad Commission against the producers "flaring" the excess gas. They must either sell the gas or curtail production—either alternative being a difficult one with which to live.

With this surplus in the background, it is quite apparent there is not going to be any immediate shortage of LP-Gas on the Pacific Coast. It would also appear that if the natural laws of supply and de-

mand prevail, no further comment on price trends is necessary.

I would like to touch briefly on the safety factor. In spite of a good safety record, the gas industry has been maligned to a considerable degree by some unfortunate propaganda and poor publicity. True, there are accidents and when they occur they are usually spectacular. Most gas explosions and fires are spectacular, whether the gas is manufactured, natural or LP-Gas.

There have been standards developed covering the safe storage, transportation and utilization of LP-Gas and in most states adequate regulations to cover them if they were properly followed and enforced. But you can't legislate to

cover the carelessness and indifference of some few individuals. There are similar standards and regulations covering the installation of electric wiring and equipment. Accidents are caused by non-observance of these.

And now let's take a look at the record. According to the National Fire Protection Association estimates of distribution of United States fire losses by causes for 1947—67,400 fires, creating losses amounting to 68 million dollars, are laid to electrical equipment, faulty installations, misuse and faulty appliances.

During the same period 4300 fires, involving a loss of 6 million dollars, were caused by gas and gas appliances. These figures embrace all gas and include LP-Gas. So the record for gas does not look too bad, does it? And, as of January 1, 1948, there were, throughout the nation, over 20 million residential gas customers connected to gas mains and over 4 million users of LP-Gas so we are really talking about a large exposure. All possible means are being employed by the industry to educate their employees, jobbers and the consumer on the safe handling and use of LP-Gas.

The LP-Gas industry is quite proud of its rapid and substantial growth and now feels it has reached full maturity. It looks to the future with confidence in its ability to provide adequate products and services to the ever-widening market.

It also takes pride in the fact it has shared along with our good friends in the electrical industry in the development of better goods and services which has done so much to raise the standard of living here on the Pacific Coast.

Dealer Employs New Method To Make Drivers Safer

The Northern Liquid Gas Co. of Superior, Wis., has had its troubles selling the idea of "safety" to its truck drivers. Urgings and promptings and reminders didn't seem to put over the vital message.

So John Turney, owner of the company, decided he would write 'em a letter. And he did. It's getting results too, Mr. Turney says, and "has done a lot of good. Believe it or not, they are thinking, and being more careful."

Here's the letter, headed "Wanted—an investor," that was mailed to all of the company's truck drivers:

"This letter is written to YOU, the drivers of our propane delivery trucks.

"Today we have delivered into your custody a brand new propane tank truck. We have invested over \$5000 in this unit. You, too, have an investment—your job—your health and happiness—your life. Yes, your life. You are driving eight tons of lethal destruction and your life depends upon your actions. Take care of both our investments.

What More Could It Have?

"This truck was built by the best engineers in the world, of the finest materials in the world, and has every known feature of safety incorporated into it. It has air brakes, vacuum gear shift, stop lights, go lights, turning lights, back up lights, parking lights, clearance lights, dimmer lights and instrument lights. It has safety glass for your protection, sun visor and windshield wipers so that you can see, heater to keep you warm and defrosters to clear the glass. It has a fire extinguisher in case of fire, flags and flares for emergency, front and rear bumpers, safety valves and excess flow valves on the tank.

"All of this adds up to a lot of

expensive equipment for the safety of the public, our customers and you. These things have taken a great deal of thought and trial by the manufacturers of these various items.

"But there is one thing that the makers of this truck and tank did not put on this unit. That is the one thing that we are asking you to invest in this truck, and you are the only one who can do it. That is **BRAINS**. For God's sake put some brains into your job and think—**THINK, DAMMIT**—think before you act.

Yours for sane driving,
"John Turney
"Your Boss

"P.S.—You have my permission to frame this letter and hang it in your truck. Read it every day—**THINK! THINK!**"

Current Servel Instructions Supersede Safety Issue Data

In the June (1949) Safety Issue of *BUTANE-PROPANE News* (Pages 80-81) instructions were given covering the installation of Servel gas refrigerators. These were based upon a Servel manual, but there is currently published a revision of such information that Servel, Inc., desires installers and servicemen to follow instead of those given so as to avoid the possibility of misunderstanding.

To provide the user with the type of performance to which he is entitled, consideration must be given to (1) proper air circulation, (2) level, (3) the right burner flame, and (4) the user must be properly instructed in the use and care of his refrigerator.

1. To assure proper air circulation, the refrigerator should be installed with provisions for a 2-inch clearance between the back of the re-

frigerator and the wall and a 1-inch clearance between the side of the refrigerator and the wall. If a shelf or wall cabinet overhangs the top of the refrigerator, the following clearances should be observed between the top of the refrigerator and the underside of the projection:

Projection*	Clearance
To front of refrigerator	12"
Halfway to front of refrigerator...	9"
Quarterway to front of refrigerator	6"

* These projections include 2-inch back clearance.

2. Leveling of the freezing compartment is essential so as to provide for the equal distribution and flow of the refrigerant within it. Leveling from side to side and from front to back can be checked by placing a small spirit level on the bottom ice cube tray shelf.

3. The right burner flame, both maximum and minimum, is absolutely essential to proper refrigerator performance and depends upon (1) the selection of the proper burner, (2) that its parts are correct, (3) that they are clean and properly assembled, (4) that the recommended maximum and minimum gas flow is provided, and (5) that air adjustment and spacing requirements are observed. The generator flue and burner must be warmed through operation before making final adjustments.

4. Proper user instruction. Using the Operating Instructions booklet contained in each refrigerator as a guide, will be reflected in customer satisfaction and freedom from expensive service complaints resulting from lack of understanding. The need for this instruction, that is all too frequently neglected, cannot be stressed too strongly.

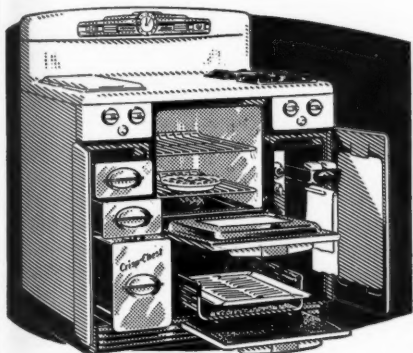
Beautiful • Automatic and LP

the 1950 **TAPPAN**



Your guide to the
best in modern
automatic cookery.

*More women want the conveniences
Tappan has—so Tappan is the
easiest to sell range. Here's why—*



*Beauty of design that is easy
to clean and keep clean . . .
lifetime beauty of the distinctive
Tappan cove top and
center oven.*

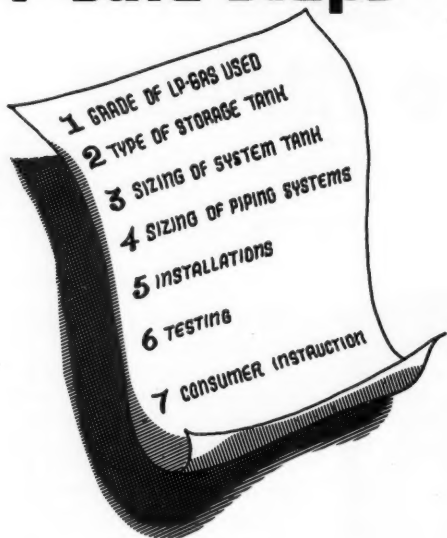
*Automatic controls—all in
one beautiful panel the Tel-
U-Set—make cooking simple,
easy, and make your story
stronger than competition.*

TAPPAN helps you sell with especially prepared LP newspaper mats, highway posters, window and counter cards, window and floor displays, sales training and sales demonstration outfits . . . plus a continuing program of LP national advertising. Ask your Tappan representative to show you the way to profitable LP sales.

The **TAPPAN** STOVE COMPANY
Mansfield, Ohio

DOMESTIC INSTALLATIONS—

7-Safe Steps



In Two Parts

Part 2

By JOHN SZITAR
The Weatherhead Co.,
Cleveland, Ohio

(Continued from Last Month)

It is well to state here that in any given regulator setting for a given pressure, the flow will remain constant and if we increase the flow, we do so at a reduction of pressure and likewise if we increase the pressure, the volume is reduced. For example, Chart I shows that in order to push 100 CFH of propane through 50 feet

of $\frac{1}{2}$ " diameter by .035 wall tubing, we must expect a line loss of pressure of 14 inches water column. The next line shows this loss to be only 7 inches water column when the tube length is 25 feet, indicating the loss is proportional to the length of line.

If only 50 CFH of propane is pushed through 50 feet of this tube, the line loss is only 4.3 inches water column, which shows that the line loss increases rapidly and

above an even ratio as the volume is increased.

This chart also shows the loss to be expected from various lengths of $\frac{3}{4}$ diameter by .035 wall tubing which is considerably less than those of $\frac{1}{2}$ " tube.

From this chart can be seen the necessity of sufficient tube size to give the regulator a chance to properly perform its function in supplying gas volume and pressure.

We have attempted to show that all piping systems are all subject to "pressure drop" or "line loss." It cannot be eliminated, but we can control it by proper size and length of lines and reduce it to a value where it is practical for use in our system.

Outline Proposed System

In determining an arrangement of piping for a system installation, a rough draft, or outline, of the proposed system should first be made. It is assumed that the number of appliances with total Btu capacity has been determined and reduced to CFH load and a storage tank with regulator of sufficient capacity and volume have been selected. With the location of the storage tank established on the owner's premises, a definite length of piping will be required to be run from it to the house. Location of appliances within the house will then determine the number and length of lines to lead to our service line.

In selecting the size of tubing or pipe for the system we can use various charts which have been

issued, which show various flow ratings of propane and butane. Most of these are rated with a 0.5 inch pressure drop, as house piping is generally sized for minimum pressure loss on the basis of a fixed pressure drop for the required length of run. Use of good judgment in selecting pipe sizes to provide the maximum demand load for majority installations will normally result in good operation. For those systems where larger units and large loads are required, it is desirable to determine or check pipe sizes by calculation.

A table showing pipe flow data will be found on the following page.

5. Installation of Piping and Systems

The systems shall be installed and used in general accordance with the standards of the National Board of Fire Underwriters, Pamphlet 58, for containers and equip-

A BUTANE-PROPANE DEALER'S PRINCIPAL job is to make correct installations at customers' premises. If fuel tank, yard line and house piping are installed according to accepted good practices, they will be safe and they will give long service.

Dealers are naturally interested in hearing what industry authorities have to say about correct installations so they can apply that information to their own problems. Not long ago (at an LPGA service school in Colorado), John E. Szitar, Weatherhead Co., Cleveland, presented a paper upon this subject. It is a text that can well be kept close at hand for ready reference and made available to all members of service and installation departments of distributors.

**FLOW OF BUTANE OR PROPANE THROUGH SEMI-RIGID TUBING
IN THOUSANDS BTU PER HOUR, 0.5 INCH PRESSURE DROP**

<i>Length of Pipe Feet</i>	Tubing Size in Inches OD															
	$\frac{1}{4}$ "		5/16"		$\frac{3}{8}$ "		$\frac{1}{2}$ "		$\frac{5}{8}$ "		$\frac{3}{4}$ "		$\frac{7}{8}$ "			
	P*	B**	P*	B**	P*	B**	P*	B**	P*	B**	P*	B**	P*	B**	P*	B**
10	8.7	9.0	23	24	39	40	92	95	199	206	329	341	501	520		
20	4.3	4.5	13	14	26	27	62	64	131	136	216	224	346	359		
30	3.0	3.1	9.6	10	21	22	50	52	107	111	181	188	277	287		
40	..	..	6.8	7	19	20	41	43	90	93	145	151	233	242		
50	..	..	..	..	..	..	37	39	79	82	131	136	198	206		
60	..	..	..	..	..	..	35	36	72	75	121	126	187	194		
70	..	..	..	..	..	..	31	32	67	70	112	116	164	170		
80	..	..	..	..	..	..	29	30	62	64	104	108	155	161		
90	..	..	..	..	..	..	27	28	59	61	95	98	146	152		
100	..	..	..	..	..	..	26	27	55	57	90	93	138	143		

*Propane Sp. Gr. 1.53—2500 Btu per cu. ft.

**Butane Sp. Gr. 2.00—3175 Btu per cu. ft.

ment for storage and handling of LP-Gas. Before proceeding with the installation of the system, be sure to comply with all regulations, state or local which may apply.

Installation of house piping, or connection of the system should be by qualified personnel. Where applicable, the recommended practices of the National Board of Fire Underwriters' Pamphlet 54, on "Installation, Maintenance and Use of Piping, Appliances and Fittings for City Gas" can be used to good advantage by the installer.

For piping, tubing and fittings, there are standards given in Pamphlet 58 for installation practices on LP-Gas systems.

Piping, fittings, and valves shall be of a type approved for LP-Gas use. Wrought iron, steel, brass, or copper pipe or seamless copper,

brass gas tubing can be used. All piping should, however, be suitable for a working pressure of not less than 125 lbs. psi. Piping and fittings should be extra-heavy up to the first reducing valve so as to stand the tank pressures.

All screwed valves, fittings, or other connections should be sealed against leakage by use of a suitable joint compound. When an approved jointing compound is used, it should be applied sparingly and only to the male thread of the joint.

All material used on a job should be carefully inspected for any defects or damage which may cause failure of the system. Rusted material, seamed pipe, etc., should not be used.

On all pipe threaded units, be sure that the pipe is threaded with clean cut threads of American Na-

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OR BEND—
3/16" THICK**

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PIECE POST**

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tional taper pipe size and form. Undersize and oversize pipes will not join up to proper thread engagement. Pipe with flat threads, stripped, chipped or damaged or which has corroded threads should not be used.

As previously pointed out, the complete system of piping as a whole and each of its branches should be designed to have a capacity sufficient for the load. You should know the approximate Btu to be consumed and select pipe size after consulting a pipe capacity chart.

Piping Should Be Accessible

Piping should be located, where possible, to be accessible for service, even though it may be concealed. Piping should not be laid to support any weight or be subjected to any extra strain. Piping shall be supported by hangers and brackets at suitable places. Provision shall be made for expansion, contraction, jarring and vibration and for settling. Piping should not be placed where it may be subject to damage by falling objects, etc.

Install the piping so that the minimum is exposed to the elements or extreme heat and insulate all piping exposed to sub-freezing temperatures.

Separate valves or cocks are required on every supply line or branch if the operation or maintenance of the appliance supplied requires that gas be shut off from the line or branch from time to time, unless it can otherwise be shut off with equal convenience or safety.

In all LP-Gas piping, it is essential that drips be installed so that condensed liquid will drain to the condensate drip at the lowest point in the system and be revaporized. The drip being buried into the ground will carry this liquid to a warmer point in the ground, causing it to revaporize. (See Figs. 1 and 2.)

Make all connections to main supply line, such as lateral lines to individual appliances, on the top or side of the main line and never on the bottom.

Bury the yard line well below the frost line—at least 24", and it should be free of sags to prevent trapping of liquid and should be backward slope or grade.

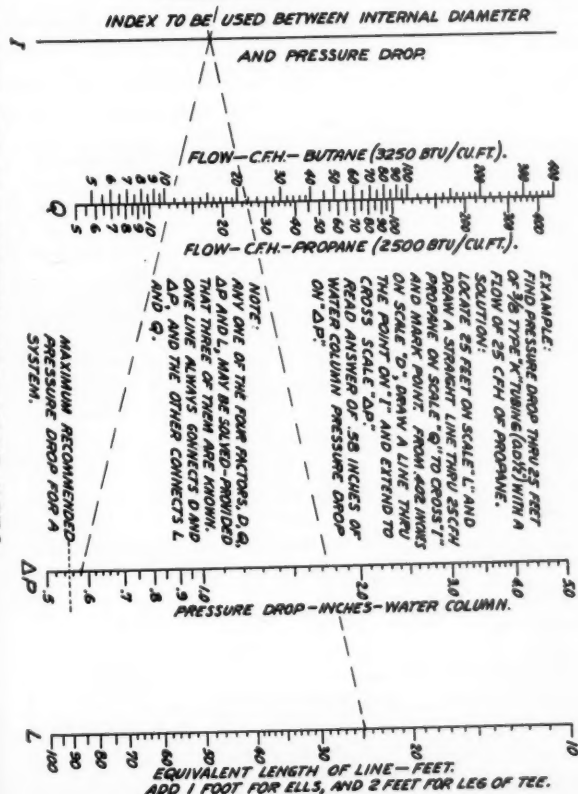
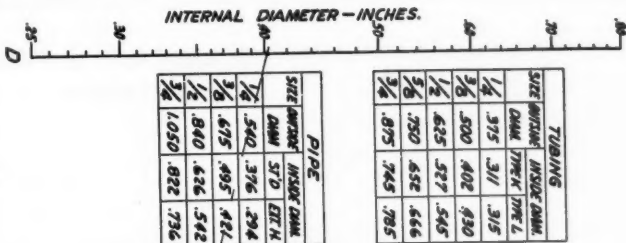
Copper Tubing in Wide Usage

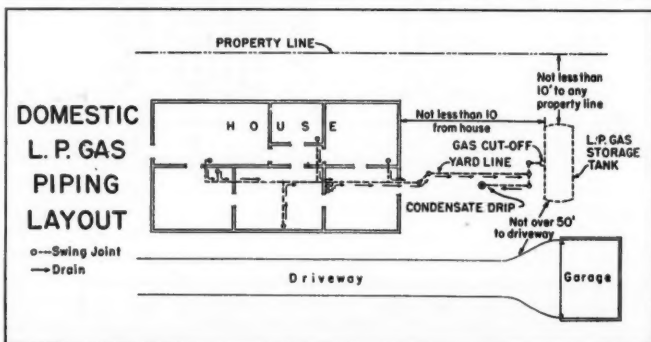
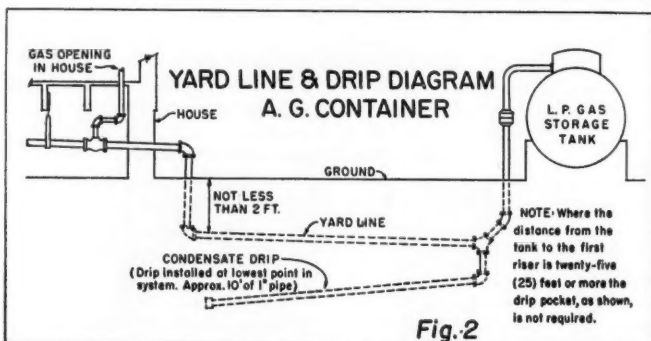
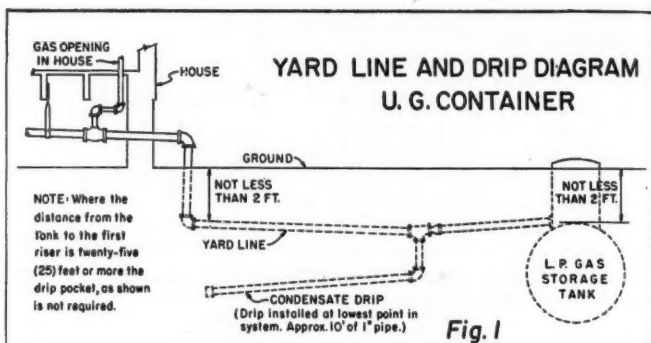
Today, there is large usage of copper tubing in systems. Use of this soft medium permits runs to many spots and is readily bent on the job to suit the particular installation. Generally, it is joined by the use of flare type fittings.

There are some precautions to be observed in the fabrication of copper tube joints which may be of interest to the reader.

The tubing can be cut with a tube cutter, preferably, although a hack saw can be used. The end should be square with cut burrs removed. (When a hack saw is used, the ID should be blown clean of chips, etc.) Angular cuts will result in angular flares with consequent poor contact with the fitting at assembly and may cause leakage. The tubing is easily flared by use of hand flaring tools. The

FLOW DATA—LOW PRESSURE LP-GAS LINES





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*....they're the best for Your Customers—
—and you! **

When it comes to LPG Outfits for bulk delivery and portable cylinder systems, RegO is "just what the Doctor ordered" for your customers. And when you prescribe RegO, you can do so with the assurance that your customers will get the dependable and trouble-free performance which they expect and to which they are entitled.

REGO Multivalve Outfits for underground and above ground bulk delivery systems provide low installation costs and reduce the hazard of leaks. *Only the minimum number of individual connections to the container are required.*

REGO Manifold Outfits for portable cylinder systems assure a dependable and continuous supply of gas to the user.

These outfits are assembled, rigidly tested, packed in re-shipping cartons and are ready to install in the field.

** and you!* With RegO-designed equipment you virtually do away with those costly middle-of-the-night service calls which eat into your profits. And, what's more, you have satisfied customers who become ready buyers for the additional appliances that bring about increased gas loads.

Yes, RegO is best for your customers—and you!

PIONEER AND LEADER IN THE
DESIGN AND MANUFACTURE OF
PRECISION EQUIPMENT FOR USING
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proper size of flare should be made for best results.

Since the tubing is soft, it can be easily bent on the job. However, sharp bends should be avoided, so that the tubing is not collapsed or kinked, as they would cause restriction to gas flow. If small radius is required, then a bending tool should be used for best results. Use of a coil wire type tube bender also will give good results.

All tubing that is required on the job should be run in a neat manner and as straight as possible. Exposed tubing must be kept at a minimum. All severe turns to be made must be done with fittings, and not by bending the tubing. All tubing must be fastened securely and none of it left hanging loose.

Location and Placing of System on Customer's Premises

As a rule, the customer has a location selected for the placing of the system. For various reasons it should often be relocated. In doing this, you should be able to tell the customer why and explain fully, always bearing in mind the minimum distances from any building. Listed below are conditions to be considered when locating systems:

1. Distance from buildings.
2. Accessibility for fuel truck.
3. Obstacles on customer's premises, such as septic tanks, abandoned wells, etc.
4. Condition of ground. Select a location that is free from ashes, gravel and rock as far as can be determined.
5. Yard or ground drainage. Make every effort to keep system away from low, damp locations.

It should be remembered not to sacrifice a good location for the system in order to save on pipe to house or building.

Installation of System—Distances

There are definite distances set up to install LP-Gas systems from any building and they should be known and strictly followed whenever a system is installed. These distances are prescribed by The National Board of Fire Underwriters in Pamphlet 58 and are as follows:

WATER CAPACITY OF SYSTEM	MINIMUM DISTANCES	
	Underground	Aboveground
Less than 125 gallons..	10'	None
125 to 500 gallons.....	10'	10'
501 to 1200 gallons.....	25'	25'
Over 1200 gallons.....	50'	50'

Any system, regardless of size, that is used for filling tractors, flame cultivators, etc., has to be 50 ft. from any building. By building, we mean any important building on the premises. This includes garages, outhouses, barns, etc., along with the main house or building or any building that would be a fire hazard in case of accident. The construction of the building, as to the material, does not permit any allowances.

For best safety practices, if, while out on a job you find the minimum distance not available, then by no means should the system be installed.

On underground tanks, a firm foundation is necessary and the surrounding soft earth or sand should be well tamped. All buried tanks prior to being placed underground, should be given a protective coat to guard against corro-

A salesman won't do much selling sitting here . . .



The "Old Refrigerator Appraisal Plan" gives salesmen a new reason to go out and ring doorbells!

The days of sitting and waiting for Gas Refrigerator sales are over. Today, with most of the must-have buyers and new users satisfied, your market is predominately replacement. This calls for *creative selling!* For as long as old refrigerators still manage to give fairly good service, it takes plenty of sales effort to nudge owners into buying a new refrigerator. And here's just the nudge you can use to get many prospects off the fence—an appraisal policy which includes a good trade-in deal and liberal time payments on a new Gas Refrigerator.

Have salesmen make appraisals on every old refrigerator in your area

You can revive a salesman's interest in creative selling by putting this new slant on his calls. Have him approach the prospect, (1) to appraise her old refrigerator, and (2) to interest her in a new Servel. After giving her refrigerator a thorough examination, he can make her a trade-in offer based on your allowance policy. At the same time, he can explain your down payment and easy monthly financing plan.

If the old refrigerator is mechanical, the salesman's story will be particularly persuasive. He can show her

convincingly that her refrigerator is likely to have a serious breakdown at any time—especially when over-worked—and need expensive repairs. She will have to pay for these repairs herself since the guarantee has long since expired. That's why the salesman's Servel selling story will be doubly strong. In addition to offering her all the advantages of a brand new refrigerator, Servel provides her with the famous "no noise, no wear" freezing system that has no moving parts to ever need repair or replacement.

The "Appraisal Plan" is only one of several selling ideas that will help you beat the buyers' market. Servel, Inc., Evansville 20, Indiana.



sion. Care should be taken not to damage this coating while lowering to position.

On aboveground tanks, the foundation should be provided as specified by the tank manufacturer. When required, the tank shall be electrically grounded. Aboveground tanks should be coated with a reflecting paint. The ground around cylinders and tanks should be kept free of combustible materials, such as long grass, weeds, brush, leaves, paper, etc., to prevent possible fires from these sources. The burning of rubbish should not be done in the vicinity of tanks or cylinders.

System Site Most Important

The location of the cylinders or bottle gas system on the customer's premises is most important. Cylinders are always installed against the house or building, and as near the location of the outlets as possible. Cylinders are never installed on porches, under houses, under sheds, under steps, or in any confining location. Cylinders must be 5' or more from any opening in the house that is lower than the cylinder valve—this includes windows, basement openings, basement ventilators, etc. It is often the case that a basement ventilator has to be permanently closed, to provide a location. In selecting a location, always consider the following:

1. Safety.
2. Accessibility.
3. Appearance.

The cylinders should never be placed away from the house or building unless properly protected by posts or other structures.

Although accessibility is essential, care should be taken not to place cylinders too near driveways or at "blind" corners where they might be struck by passing vehicles.

A cylinder installation is always made with two cylinders with a steel or concrete foundation and a partial housing. The housing covers the valves and accessories to prevent a person from tampering with the fittings.

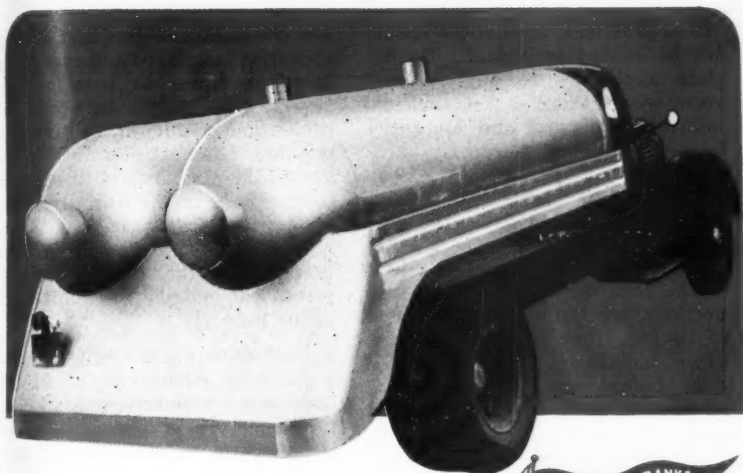
It must be remembered that safety is always the first consideration. If the installation cannot be installed to meet all safety requirements, then it is best not to make the installation.

It is a good policy for all cylinder installations to be run with 1/2" OD tubing as a minimum. On any job that presents more than the normal domestic load, a larger size is necessary. Your tubing capacity chart will help in selecting the proper size.

At the present time many installations are being made with an automatic throw-over valve between the two cylinders. This valve permits the customer to have an uninterrupted gas service at all times. It is especially desirable for use when appliances are equipped with pilot lights. A gauge is installed to show the customer when a cylinder is empty so that a replacement may be ordered.

In locating appliances, read and follow instructions furnished by the manufacturer of the appliances. Install only approved appliances.

The owner's wishes are to govern as to location of appliances



Economy ON WHEELS

Made in many sizes and types, Economy Truck Tanks combine modern design with maximum utility. Each and every one manufactured in strict accordance with the A.S.M.E. Code... built to customers' specifications.

Write for information and prices.

DALLAS TANK COMPANY, INC.

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DALLAS, TEXAS

where practical. Appliances should not be located in a draft. Do not place appliances in any enclosed room where there is not sufficient infiltration of air, and an outlet to keep the burners properly burning.

Portable heaters are to be installed with the valve on the pipe line only.

6. Testing for Tightness

The complete system joints, connections, appliances must be tested to be sure they are all leak-tight after installation. This must be done before any piping, etc., is covered. After test is completed and OK'd and all is leak-tight, then system is ready for use.

There are generally two test methods used, either the air pressure test or testing with gas pressure. With the pressure test a manometer or pressure gauge may be connected to the system. Dropping of pressure indicates leak.

When air pressure is used—the leak, if any, can be located by:

1. Listening for the hiss of escaping gas.
2. By applying a solution of soap and water to all exterior joints, leaks will be indicated by the appearance of bubbles of air, these continuing to form until the liquid dries.

If gas has been used:

1. By applying a solution of soap and water as described above.
2. By the sense of smell.

In no case shall a flame be used when searching for a leak.

Before turning on the gas system, be sure that all necessary cocks on stove and outlet shutoffs

are closed. When the first fueling operation is finished and everything is in readiness to turn on gas, slowly open valve between container and regulator to full open position. The next step in bringing gas to the appliance is to open the service cock in the line, then open appliance cocks, one at a time, holding a match or flame above burner until all of the air in piping is forced out and the gas ignites and burns properly.

7. Instructing the Customer

As many customers for LP-Gas have not previously used gas in the home, it is advisable to instruct them of its use and care. Avoid giving instructions in a manner that is liable to create a fear rather than respect for this gas in the user's mind, so that he will know there is an element of danger where carelessness is used.

Instruct the User.

1. Strike match and hold over burner before turning on gas.
2. In lighting oven or broiler burners or any other enclosed appliance or water heater where the burners are semi-enclosed, should match go out before igniting burner, turn off valve and let accumulated gas dissipate before attempting to relight.
3. How to turn off service valves (clockwise).
4. To close all gas cocks if pressure fails due to empty tank.
5. Warn them of the gas odor, and in the event of a leak, to shut off gas at the system, ventilate the room or building.
6. Call the serviceman.

Slide Rule Fire Loss Chart Is Good Gas Selling Tool

A slide-rule-like chart has been issued by the National Fire Protection Assn. giving the most common types of fires, their causes and prevention.

The seven causes listed are flammable liquids, rubbish, roofs, chimneys, heating, electrical, matches and smoking. Flammable liquids and rubbish are to blame for 20,000 fires each; roofs and chimneys are next with 27,000 and 30,000 fires, respectively. Heating follows with 44,500. Electrical fires number 52,000, surpassed only by matches and smoking at 87,000.

Gas is not included in the listing, making the slide rule a handy tool for LP-Gas dealers in illustrating the safety of their fuel to prospects.

The "Fire Rule" is available through the NFPA, 60 Batterymarch St., Boston, Mass.

Mississippi Co. Celebrates Move to New Offices

Butane Gas of Mississippi and Alabama, Inc., celebrated the opening of its new offices in Tupelo, Miss., recently with a three-day program of entertainment and displays.

During the celebration in honor of the opening of the firm's new offices, all residents of the area were invited to come in and see the many appliances now available for use with butane. Special displays showing the inner workings of several items of gas equipment were shown.

Broadcasts from the offices were featured and free refreshments were offered visitors.



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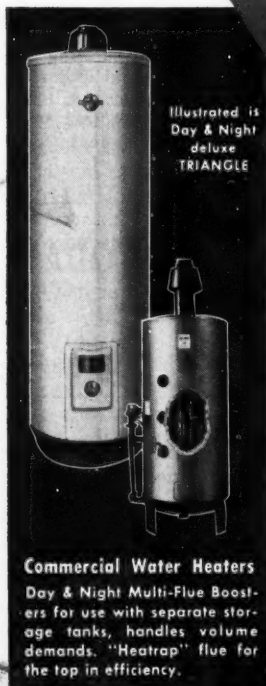
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OCTOBER — 1949

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ECONOMICAL OPERATION SELLS DAY & NIGHT WITH EASE!

ECONOMY of operation in a water heater is probably of first importance to your customers. The patented "HEATRAP" flue (an exclusive Day & Night feature) retards the rising gases and deflects them from side to side, transferring more heat to the surrounding water. This means hot water faster — but more importantly, *cuts gas bills as much as one third* when replacing an old heater. Other features include the famed "Tanksaver." Day & Night Heaters use specially designed burners for Liquefied Petroleum Gas. Leading off with the deluxe TRIANGLE, the LIBERTY and CREST in the medium and low price range complete the line. Your prospects want more hot water for less, so start recommending America's Finest Water Heater today. You'll find it to be — "The Line of Least Resistance."



DAY & NIGHT DIVISION
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BUTANE-PROPANE News

New York Dealer Sells LP-Gas At Same Price for 20 Years!

By I. SHYKE

BARTLESVILLE, Okla., even in this air age is still a far cry from Middletown, N. Y. Nevertheless, regular shipments of bottled gas arrive in Middletown from Bartlesville. Special railway cars are used to carry 10,000 gallons, every few weeks, to one dealer, alone. He is Jack Kandel, director of Kandel Brothers, distributors of bottled gas and other supplies in Middletown. This large and active firm has branches at Newburgh, N. Y., and Stroudsburg, Pa.

Mr. Kandel declares that the price of \$8 per 100 pounds, for bottled gas, has remained virtually unchanged by his company for the past 20 years.

However, there have been price fluctuations "on the other end," as he puts it. Still, this has never influenced him to correspondingly raise the costs to his customers within a radius of 50 miles of Middletown. The results of this merchandising policy are that he is maintaining all his

The new 1000-gal. tank truck of Kandel Brothers, Middletown, N. Y., with Jack Kandel, Clyde Dolloway and Moe Kandel in the foreground.



regular customers and gaining numbers of new ones. When asked how his patrons knew if prices had gone up in Oklahoma, and thus would better appreciate his continuation of no price advance, he replied:

"Do not worry about consumers. They find out sometimes quicker than we do."

At the present time bottled gas around Middletown is perhaps a bit cheaper than gas obtained from the Rockland Light and Power Co., main piped gas suppliers.

The Kandel Brothers' store has a street frontage of 50 feet and depth of 150 feet. Six International trucks, from 2 tons to $\frac{1}{2}$ ton, make bottled gas and other deliveries. The region covered is in the Shawangunk mountains territory and this is close to the Catskills. Middletown is the hub of Orange county's famous milk shed and fruit belt. This important district of the rich mid-Hudson valley supplies milk to New York City daily and its fruit products are sold throughout the nation.

Headquarters in "Typical Town"

Bottled gas marketing at Middletown is lucrative, with Kandel Brothers doing a good share of this business. Middletown is often spoken of as the Empire State's typical small city. It is 70 miles north of the metropolis and it has a population of around 22,000 people. In 1949 Middletown will do a retail trade amounting to approximately \$30,000,000, according to present estimates. Bottled gas is contributing to this better than average little city prosperity.

Free service is given by the Kandel concern for bottled gas. There are no charges whatsoever for adjustments to stoves and regulators. Maintenance is likewise gratis.

The Phillips Petroleum Co., Bartlesville, sends its shipments of 10,000 gallons in 24 gallon containers. Steel tanks that number a little over 400 hold only a portion of the supply which Kandel's will sell, generally within a few weeks or, in slower periods, in a few months.

Believes in Advertising

Constant newspaper advertising in the local Middletown "Times-Herald" has brought good results for bottled gas sales. This promotion, alone, and window displays, changed fairly frequently, secure new customers and help to remind present ones of bottled gas.

Three salesmen solicit business from firm-to-firm and house-to-house. Bottled gas has not declined in demand even with advances of other types of heating and cooking mediums.

Private homes in the milk shed and fruit belt are the main customers. Economy and elimination of meter reading are factors in the popularity of bottled gas with farmers and their town and small city neighbors.

Moses Kandel, son of the firm's directors, engages in sales and maintenance of bottled gas installations. He states that vacationists who come to Orange county in large numbers become bottled gas enthusiasts. Bungalows are often heated more easily through this medium.

"Bottled gas may be considered as effective and worthwhile for heating and cooking as any other modern fuel which costs more while doing the same thing," the younger Kandel said.

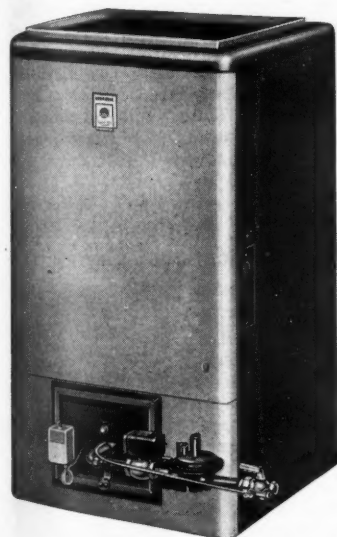
"The appeal of bottled gas is not only in its definite economy but the ready manner in which it is serviced."

AMERICAN-Standard

First in heating ... first in plumbing

You sell satisfaction when you sell

AMERICAN-Standard Heating Equipment



This is the **SHAWNEE** from the Sunbeam line by American-Standard—a compact, gas fired gravity furnace with attractive, colorful jacket. In both design and construction, the **SHAWNEE** represents the best in engineering and workmanship. Made in five sizes, ranging from 65,000 to 140,000 Btu input per hour.



Look for this Mark of Merit

■ Good heating equipment goes a long way toward making satisfied LP-gas customers. That's why it's good business to sell only products of unquestioned quality.

In the field of residential heating equipment, no name is more favorably known than American-Standard. And it is easy to understand why. For back of the widely advertised American-Standard name is more than half a century of broad manufacturing experience plus production and research facilities that are second to none.

Not only does American-Standard give you the finest quality that money can buy, but it's also a dependable source for all types of warm air furnaces and winter air conditioners for LP-gas, with a complete range of units for practically any installation.

For detailed information about the complete line, contact your Wholesale Distributor. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

The BUDGET Automatic Storage Water Heater

Has fuel-saving cast iron blue flame burner and safety controls. Correctly baffled center flue insures quick recovery. Rockwool blanket insulation between heavy galvanized steel tank and trim jacket prevents heat loss, increases efficiency. Comes in 3 sizes—20, 30 and 40 gallon capacities.



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ASSOCIATIONS

Howard White Resigns From Liquefied Petroleum Gas Assn.

Howard D. White, executive vice president of the Liquefied Petroleum Gas Assn. for the last 3½ years, has asked the association board of directors to relieve him of his duties not later than Oct. 31. He plans to engage in a private business enterprise in which he has acquired an interest.

Mr. White was appointed to his present position in mid-January, 1946, coincident with the reorganization of the association to widen its scope of activities and to include a larger membership. The president at that time was Ernest Fannin, Fannin's Gas & Equipment Co., Phoenix, Ariz. Successive presidents under whom Mr. White has served were Ty Ransome, Ransome Co., Emeryville, Calif.; Kenneth H. Koach, Green's Fuel, Inc., Sarasota, Fla.; and Si Darling, Darlingas, Pratt, Kan., currently serving following his election last May.

No successor to Mr. White has yet been named by the board of directors.

NGAA Southern Meeting At Tyler, Texas, Oct. 14

The Southern regional meeting of the Natural Gasoline Association of America will be held in Tyler, Texas, Oct. 14, according to a recent announcement from association offices in Tulsa. As with the Shreveport regional last year, the meeting will be held in cooperation with the East Texas Natural Gasoline Men's Club.

R. G. Murray, president of the

ETNGC, United Gas Co., Carthage, and R. E. Buckner, Humble Oil & Refining Co., Tyler, are co-chairmen of the program committee.

Headquarters hotel for the meeting will be the Blackstone though technical sessions will be held in the auditorium of the Tyler Women's Club. Evening entertainment and dinner will be in the American Legion hall where the Natural Gasoline Supply Men's Assn., under the direction of NGSMA President J. N. McClure, Elliott Co., Tulsa, will be host to registered guests. A registration of 350 is anticipated.

Ken Wolfe Reappointed Head LPGA Educational Committee

President Si Darling, of the Liquefied Petroleum Gas Assn., has completed the appointments of standing committee chairmen for the ensuing year.

The most recent to be named are Kenneth R. D. Wolfe, Fisher Governor Co., chairman of the educational committee; Paul Shannon, Standard Oil Co. of California, LP-Gas specifications committee, and M. L. Trotter, Carolina Butane Gas Co., Inc., publicity and advertising committee.

Chairmen of the other standing committees were appointed last



K. R. D. WOLFE

month and their names will be found upon Page 104 of the September issue of BUTANE-PROPANE News.

AGA Annual Meeting Set for Chicago, Oct. 17-20

"Gas Has Got It," the slogan that has identified the coordinated promotional efforts of the industry for the past few years, will be the key-word at the 31st annual convention of the American Gas Assn., scheduled for Chicago, Oct. 17-20.

A total registration of 6000 is expected for the meeting, which will utilize the Palmer House, Sherman, and Morrison hotels for its technical and general sessions. Under the chairmanship of George F. Mitchell, president, The Peoples Gas Light & Coke Co., Chicago, the AGA program committee has worked out a comprehensive program of addresses by industry leaders.

A sub-slogan for the convention is "49 Round Up," referring to the current industry program of replacing old ranges.

Illinois LPGA Plans Membership Drive

The Abraham Lincoln hotel, Springfield, Ill., was the meeting place of the Illinois Liquefied Petroleum Gas Assn. Sept. 9. Stan Beske, Kay Gases, Chicago, president of the association, presided at the one-day session.

Under discussion was a plan for augmenting membership in order to present strong opposition in connection with proposed state legislation that would have an adverse affect upon the LP-Gas industry. In connection with this move was the possibility of dividing the state into four sections, each section to be presided

CALENDAR

All associations are invited to send in dates of their special and annual meetings for this calendar.

Oct. 4—LPGA Pacific South West District Meeting. Southern California Gas Co. Auditorium. Los Angeles.

Oct. 5—LPGA Pacific South West District Meeting. St. Francis Hotel. San Francisco.

Oct. 7—CNGA Fall Meeting. Ambassador Hotel. Los Angeles.

Oct. 9-15—Fire Prevention Week.

Oct. 10-11—Kentucky LP-Gas Assn. Annual convention. Seelbach Hotel, Louisville.

Oct. 11-14—American Standards Assn. Annual Meeting. Waldorf-Astoria Hotel, New York City.

Oct. 14—NGAA Southern Regional Meeting. Blackstone Hotel. Tyler, Texas.

Oct. 17—Tennessee LP-Gas Assn. Andrew Jackson Hotel. Nashville.

Oct. 17-20—American Gas Assn. Annual Convention. Chicago.

Oct. 24-28 — National Safety Congress. Morrison Hotel. Chicago.

Nov. 21-22—Assn. of Nebraska LP-Gas Dealers. Hotel Paxton, Omaha.

Nov. 27-Dec. 2 — American Society of Mechanical Engineers. Annual Meeting. New York.

1950

April 12-14—National Petroleum Assn. Hotel Cleveland. Cleveland, Ohio.

April 24-26 — Natural Gasoline Assn. of America Annual Convention. Texas Hotel. Ft. Worth, Texas.

May 2nd Week—Liquefied Petroleum Gas Assn. Annual Convention & Trade Show. Palmer House. Chicago.

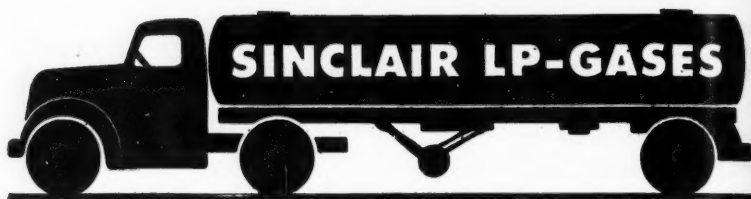
May 11-12—Missouri LP-Gas Assn. Hotel President. Kansas City.

May 28-30—Gas Appliance Manufacturers Assn. Annual Meeting. The Greenbrier, White Sulphur Springs, W. Va.

Sept. 13-15—National Petroleum Assn. Hotel Traymore. Atlantic City, N. J.

Sept. 18-20 — National Butane-Propane Assn. Congress Hotel. Chicago.

Oct. 2-6 — American Gas Assn. Annual Convention. Atlantic City, N. J.



AN UNSEEN PASSENGER RIDES IN THIS TANK TRUCK

You can't see this passenger — but he's there none the less . . . riding with every shipment of SINCLAIR LP-GASES. He's known as HIDDEN INGREDIENTS — and covers such important things as INTEGRITY, REPUTATION, RESPONSIBILITY, PERFORMANCE AND REAL SERVICE.

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over by an association officer, in order that every part of the state could be covered thoroughly.

Other topics covered at the meeting were discussions of cooperation with state and regional associations, products liability insurance, hospitalization insurance plan, and legislation.

South Pacific District, LPGA Meets in Los Angeles Oct. 4

The South Pacific district of LPGA will hold its annual meeting, open to all in the industry, on Oct. 4 in Los Angeles. Scene of the meeting will be the spacious auditorium of the Southern California Gas Co. at 810 S. Flower St., according to Don McNary, West Coast secretary.

Featuring the morning part of the program is the popular demonstration "Gas vs. Electricity" put on by "Ace" Aseltine and his home economics staff of the utility company. This demonstration shows conclusively in every way, from boiling water to broiling steaks, the advantages in speed, economy, and convenience of gas over electricity. The staging and equipment for this demonstration and the presentation, itself, are outstanding and will offer LP-Gas men a unique opportunity to improve their sales techniques.

The afternoon portion of the meeting will give West Coast dealers a chance to compare notes with a Midwesterner, as Si Darling, president of the LPGA and of Darlingas, Inc., Pratt, Kan., will discuss LP-Gas operations and competition in the Midwest.

Howard D. White, executive vice president of the LPGA, is also scheduled for this portion of the program and will discuss the activities of the association.

Of special interest to California dealers will be the talk of State Fire Marshal Joe R. Yockers. Chief Yockers will outline the main fea-



HARRY HORN



ED. McENEANY

tures of his forthcoming proposals to the state legislature which were authorized by Assembly Concurrent Resolution No. 91.

A new feature will be "Information Please." The audience will have an opportunity to submit questions to a board of experts. This has been an extremely popular addition to meetings in other parts of the country.

The program is under the direction of E. C. McEneany, LPGA South Pacific director and owner of the Diablo Co., Walnut Creek, Calif., and Harry I. Horn, California director, of Anaheim. All in the LP-Gas industry are invited to attend. The meeting will begin promptly at 9:30 a.m.

National Safety Congress Expects 12,000 to Attend

Talks by important leaders in some of America's largest companies will highlight the program of this year's National Safety Congress and Exposition, to be held in Chicago Oct. 24-28.

Nearly 12,000 safety-minded persons from all corners of the United States and from Canada and other parts of the world will meet in Chicago for five days at the 37th annual convention of the National Safety Council.

Eliminating Headaches in Measuring Butane and Propane

In Two Parts Part I

IN previous papers delivered at the National Conferences in 1940 and 1941, I discussed "Contemplated Methods of Testing Meters Used in the Measurement and Sale of Liquefied Petroleum Gas," and "Testing Liquefied Petroleum Gas Meter Systems by the Gravimetric Method."

This is to be a talk about some of the problems encountered in recent years with the thought that it will be useful in eliminating a lot of headaches when you are confronted with these questions in the field.

It is likely to be something of a shock when a sealer of weights and measures approaches his first job of calibrating an LP-Gas tank truck. It does not have some of the attributes of the well-behaved vehicle tank to which he is accustomed. There are no centrally located domes on top. In place of these, he finds valves, gauges, and fixed outage tubes which take the place of capacity indicators.

By CHARLES MORRIS FULLER
Sealer of Weights and Measures,
County of Los Angeles, California



CHARLES M. FULLER

Calibrating these tanks is a time-consuming job. The normal gravity discharge rate from our testing outfit in Los Angeles, through 3-inch outlets, is approximately 8 gallons per minute in filling ordinary gasoline tank trucks; but we consider ourselves lucky in approaching 20 gallons per minute when gauging any LP-Gas tank. The reason is this: Gasoline tanks have large fill openings that do not retard the flow of water from the test tanks. In the case of LP-Gas tanks, the water enters through a bottom valve and fill pipe, usually

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INCREASINGLY IS THE SUBJECT OF measurement of LP-Gases getting attention from weights and measurements officials in many states. It is important that such officers, and dealers as well, should be familiar with methods now in use and the efforts being made to simplify and perfect existing equipment.

There are two common practices — the gravimetric and the volumetric.

The accompanying paper upon the subject of the gravimetric method was given recently by Charles M. Fuller at the 34th National Conference on Weights and Measures in Washington, D. C. Mr. Fuller is Sealer of Weights and Measures for Los Angeles county, California.

Soon, BUTANE-PROPANE News will carry an article on the measurement of LP-Gases by the volumetric method.—Editor.

not exceeding 2 inches in diameter. Only very small air vents are provided, about 1/4-inch in diameter, thus causing slight air pressures to develop and slowing down the rate of fill.

Fire prevention bureaus and industrial safety departments in California have frowned on any suggestions of providing manholes or larger fill openings in the top shell of these tanks because of the greater hazard of possible vapor leaks.

The LP-Gas tank is a closed vessel and there is no visible means of indicating the capacity level. This was the definite problem that confronted us when we first started gauging them, some 12 or 14 years ago.

To answer this need, a slip tube indicator was developed. It consisted of a small, vertical tube within a friction fitting or packing gland, with a valve at the top of the tube. By sliding the tube lower or higher

in the tank, the liquid level could be ascertained, as the pressure of the gas within the tank would blow the liquid through the valve at the top of the tube in the form of a white cloud as soon as the surface of the liquid reached the opening of the tube.

We never recognized or certified these tubes for capacities at different depths throughout the tank, because this could not be done within the range of reasonable tolerances. We would certify to 2 capacity levels if the tank were constructed to stand the additional pressure and used to handle propane as well as butane.

Slip Tubes Tried Out

The slip tubes were marked in this manner: The tank was filled with water to the calculated innage level. The depth of liquid from the shoulder of the packing gland was ascertained, and this distance in inches and fractions was filed as a ring on the slip tube. The constant development of vapor leaks in the packing gland, however, made this method unsatisfactory. There was also no positive means of sealing for the prevention of fraud. Slip tubes could be substituted.

Next appeared the much more satisfactory fixed outage tube. Essentially it is a small tube welded in a vertical position to a cross bar attached to the inside shell of the tank and midway between the ends of the tank (Fig. I). The inlet end is cut off at the height that defines the filling point. The outlet end emerges through the bottom of a protective well, welded in the side

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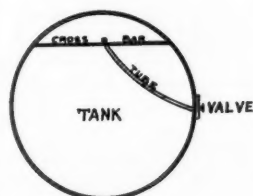


FIG. 1

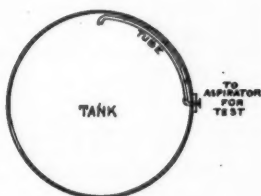


FIG. 2

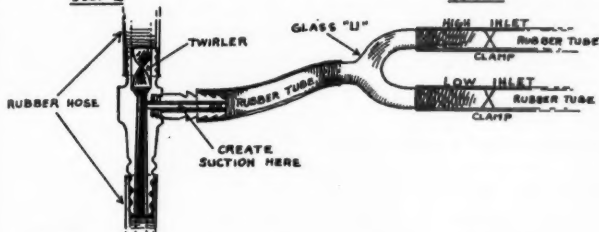


FIG. 3

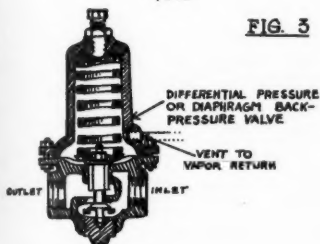


FIG. 4

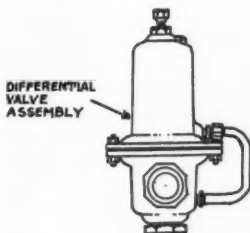


FIG. 5

Schematic diagrams illustrating problems encountered in testing liquefied petroleum gas equipment.

of the tank, somewhat below the inlet end to facilitate rapid drainage, and is equipped with a valve through which vapor will vent until the liquid level reaches the top of the indicator tube.

When calibrating a tank equipped in this manner, the fill valve should be partially closed as the capacity level is approached, so that the liquid level will not rise above the inlet of the tube before the liquid

has a chance to appear at the valve of the tube. For this reason, the length of the tube should be as short as possible.

While the fixed tube overcame some of the faults of the slip tube, we ran into mechanical difficulties of installation. As the result of vibration and road stresses, the cross bar to which the tube was welded would break loose from the shell of the tank, or the tube would part company with the cross bar—serious drawbacks indeed.

Welded Fixed Tube to Shell

To overcome his troubles along these lines, one enterprising fabricator welded the fixed tube to the shell of the tank and then let it extend down from the top of the shell to the correct innage point or level (Fig. II). While this solved *his* problem, he did not give any consideration to calibration procedure nor did he even inform us of the change. Naturally, when we calibrated the tank, there was hardly any expansion space left, because not enough pressure was developed to force water up and out of the tube. Our calibration data did not agree with the calculated capacity of the tank. We contacted the fabricator and the cause of the error was revealed.

After some consideration, we decided to try out a simple type of aspirator, or filter pump, to create a suction. This was used in combination with the following arrangement for the purpose of calibrating a vehicle tank that had two fixed tubes for the purpose of indicating the fill levels of either propane or

butane. A "U" tube was fashioned from small glass tubing.

Another piece of glass tubing was joined to the bottom of the "U" tube, and this was connected to the aspirator by means of rubber tubing. The two legs of the "U" tube were connected by rubber tubing to the outlet valves of the fixed indicator tubes of the vehicle tank. Clamps applied to the rubber tubing made it possible to shut off either of the tubes, so that only one would be in operation at a time (Fig. III).

With the aspirator functioning, a suction is created within the tube connected to it. This causes water to appear immediately in the glass "U" tube as soon as the level in the vehicle tank rises to the opening of the fixed indicator tube, and the inspector quickly shuts off the flow of water from his calibration tank. Calibration within a much closer tolerance is made possible by this equipment.

When filling the tank with liquefied petroleum gas, the increased vapor pressure eliminates any need for an aspirator.

To be continued.

Two Texas Firms Combine In "Big Ben Gas Co."

The consolidation of Shannon Butane Co. and the King Appliance Co. has recently been announced. S. J. Burchett and Frank Burleson purchased the two companies and merged them to operate as the Big Ben Gas Co., Alpine, Texas.

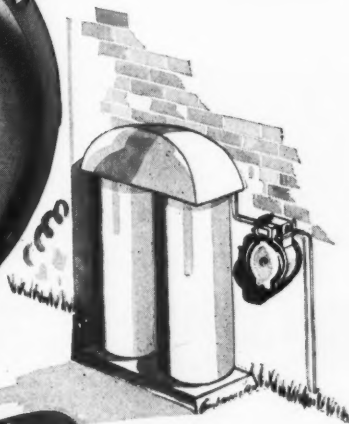
Mr. Burchett formerly operated the Alpine branch of the Shannon company.

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OCTOBER — 1949

111

Pay Incentive Plan Boosts Appliance Sales

NORTHERN Arizona Gas Service, Flagstaff, Ariz., is going after appliance business in two ways:

First, it has a full time appliance salesman on the road, contacting old customers and calling on new prospects; and, secondly, it has recently started an incentive pay plan. As a result, it is ringing up 15% of its total retail volume in appliances.

"We're using the incentive pay plan to stimulate sales by our routemen as well as by the regular salesman," W. T. Brinton, manager of the firm, explained.



W. T. Brinton, manager, Northern Arizona Gas Service, Flagstaff, Ariz., examines "lead" cards that are used in the firm's incentive pay plan.

By JOE BAER

The plan is unique in at least one respect. It pays a routeman to supply leads to the full time salesman, where the routeman may not be able to close the sale himself. Here's how it works:

When a routeman, or the salesman, sells an appliance, the firm pays him 1½% of the gross sales as an incentive bonus.

If a routeman does not make the sale himself, but turns in a lead which is followed up by the salesman, then if a sale is made, the routeman gets 1% of the gross; the salesman—who closed the deal—the remaining ½%.

Incentive bonus payments, of course, are over and above the men's regular salaries. And payments are made once a month following the consummation of a sale.

To keep bookkeeping problems to a minimum, Mr. Brinton requires routemen to file a card showing complete data of prospective customer. The information on the card gives date, customer's name, what appliance he is interested in, and whether or not the routeman will complete the sale, or if he desires a follow-up by Mr. Dale Sweitzer, the company's full time appliance salesman.

Although it's too early to tell exact results of the plan, Mr. Brinton says the men are enthusiastic about it.

Results of the personal calls by Mr. Sweitzer are good. He has been selling liquid gas refrigerators, ranges, hot water heaters and other appliances and his personal contacts add

daily to the company's list of new LP-Gas users.

"We're definitely getting sales of appliances because Mr. Sweitzer is out seeing prospects and bringing them in for demonstrations," Mr. Brinton stated.

"His calls on new home builders are particularly important," he added. "For this gives him a chance to explain to these people the advantages of liquid gas over electricity. (There's no natural gas in the area.) And we've had sales of several units—from gas range, refrigerator, water heater to floor furnace—to such new builders. These sales were a direct result of personal calls."

From the start, Mr. Sweitzer followed a "lead" plan rather than calling on a house-to-house basis. Leads were supplied by routemen and also the firm's customers. While calling on such a "lead," he would check up on other prospects in the area.

For his new home-builder prospects, Mr. Sweitzer keeps close check on issuance of building permits. He finds these either in the local daily newspaper, or in the city's building commission office.

Northern Arizona Gas Service makes full use of its 15-foot by 15-foot sales room in downtown Flagstaff. This small room holds neat displays of nine gas ranges, two Servel gas refrigerators, one water heater, floor and wall furnaces, and several space heaters.

The days of waiting for "drop-in trade" are over at Northern Arizona Gas Service. They're going out after the sales!

"Gas Facts," AGA Publication, Gives Industry Statistics

The 1948 edition of the American Gas Assn.'s "Gas Facts," now available to the gas industry, lists all major interstate natural gas pipe-

lines and their operating statistics up to the end of 1948, AGA officials have announced.

The edition, the third of its kind, also lists current and prospective (1945-1952) construction expenditures by utilities. Also included are energy reserves, production, transmission and distribution figures, sales and utilization reports, and information on finance, labor, and price statistics.

The report was prepared by the AGA committee on economics, and is available through AGA offices in New York. Price: \$1.

New Anhydrous Ammonia Supply Available Next Year

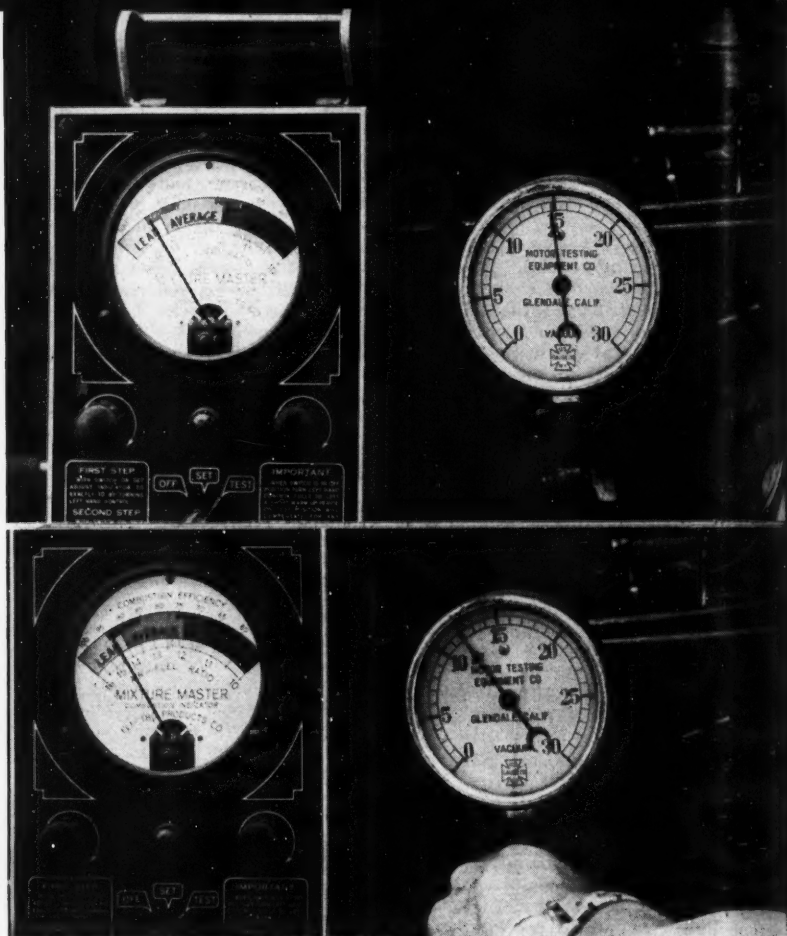
A \$5-million ammonia plant will be built at Freeport, Tex., next year by Dow Chemical Co., president Leland I. Doan announced last month.

Work will start in January on the plant, which is scheduled to have a daily capacity of 100 tons. The plant will utilize hydrogen available from the company's chlorine plant in Freeport, and will combine it with nitrogen from the air to produce anhydrous ammonia. Gas engines of 1000-hp. will be employed to compress air and hydrogen in the Haber-Bosch process of producing ammonia.

"Lee Co. Gas Service" Is Name Of New Arkansas Distributor

Articles of incorporation were filed with the office of the secretary of state at Little Rock, Ark., by Lee Co. Gas Service, Inc., of Magnolia, Aug. 11, to engage in retail and wholesale distribution of liquefied petroleum gases.

The incorporators are: Mae M. Bronaugh and R. S. Bronaugh of West Helena, and J. G. Burke of Helena. Authorized capital stock was listed at \$5000.



Top photo taken with analyzer showing correct air-fuel-ratio reading. Continuing to lean out the mixture too far brings analyzer back to same reading, but lower vacuum gauge reading indicates leanness. At indicated air-fuel ratios around 14.5:1 the analyzer can be very misleading. Use vacuum gauge with the analyzer to be on safe side.

POWER

Most "Carburetor Trouble" Is Somewhere Else

THE first principle of trouble shooting with LP-Gas carburetors is exactly the same as with gasoline carburetors. *Never touch a thing in the carburetor until you are sure that the trouble is not somewhere else.*

The reason? At least 90% of all owner's and driver's complaints of alleged carburetor trouble in gasoline driven vehicles are not carburetor trouble at all. Drivers of LP-Gas engines are just about twice as likely to guess wrong in this matter, because the gas equipment is not something that was put on at the factory, hence they expect it to give a certain amount of trouble. Many times, carburetor complaints turn out to be such remote things as corroded battery cable terminals, dragging brakes, or even dry gear cases.

So before you rush in and make some misadjustment to the carburetor, which you will have to go back and correct later, make sure that the trouble is not somewhere else. Connect a vacuum gauge on the intake manifold, and perform the simple, quick tests which will show you whether the ignition system and valves are working as they should, and that there are no air leaks in the intake manifold.

Complete instructions for these tests, and interpretation of the meter readings, are nearly always included with the gauges, and the information is in every manual for tuning up gasoline engines. If the gauge shows that there is trouble in any of these locations, fix it before attempting any carburetor changes. You cannot possibly tell whether the carburetor is right as long as the rest of the engine is unable to work properly.

Suppose you did put on an exhaust gas analyzer and take readings. A spark plug missing now and then would give the same reading on the meter as a rich mixture, even though the carburetor might be perfect. A leaky intake manifold gives the readings of a lean mixture. It is a lean mixture—it is the carburetor mixture mixed with more air. You could compensate for a small manifold leak by setting the carburetor richer, and make the engine run all right at low speed, which is where this particular trouble shows up. But what would happen at higher speeds? The engine would run just about

By H. P. GOSS

as well as before—you might not be able to tell the difference, but the fuel bill would show the difference.

Why monkey with the carburetor on the operator's first complaint? Only after you are sure that it is not the valves, ignition, or the manifold, can you assume that it might be the carburetor.

After an LP-Gas carburetor has once been properly adjusted, the adjustments should be right for a long time, unless there has been a drastic change in the fuel, or unless one of the lock nuts on an adjustment screw works loose and permits it to vibrate into another position, or unless the economizer piston gets dirty or oily.

Handles Vapor, Not Liquid

Think this over: The LP-Gas carburetor is not metering minute streams of liquid through very small holes, as in a gasoline carburetor. It is handling vapor. It takes nearly 250 times the port area to get the same amount of vaporized fuel through the "butane" carburetor. It has no finely tapered idle adjustment needles to get bunged up—no metering rods to rub against the sides of calibrated holes—no tiny passages to get clogged up with dirt and muck. The openings for vaporized fuel do not wear, and they do not clog up.

After you are sure that any troubles in the above named engine units have been corrected, you will be able to tell whether or not anything is really wrong with the fuel system. If there is any indication of a lean mixture, find out first if

there is a full flow of fuel coming into the regulator.

Turn off the fuel valve at the tank, and disconnect the fuel supply line from the regulator. Even with the valve at the tank turned off, the pressure in the line should force fuel through fast. (Be careful about cigarettes or other sources of ignition while this is going on.) If you do not get a rush of fuel, there is a stoppage between the tank and the regulator. Might be a clogged filter—they sometimes fill up from the rust and scale that forms in a new tank after the hydrostatic pressure test required by law. Or a line might be clogged or kinked.

The cure for plugged lines and filters is obvious. Never try to straighten out a fuel line that has been kinked or crushed. Cut out the bad place and put in a copper tube connection.

With the fuel line cleaned out and reconnected, turn on the fuel and start the engine. If it runs without evidence of leanness, the regulator is OK. If still lean, it may be the regulator, or a sticking economizer plunger.

Other Places to Look

Before doing anything to the regulator, remove and clean the plunger (if there is one in the mixer). Swab out the plunger cylinder with a piece of rag wound on a wooden pencil or other small piece of wood, and reassemble. Set the adjustment screws as nearly the way they were as possible, and start engine. If there is still evidence of leanness, turn adjustment

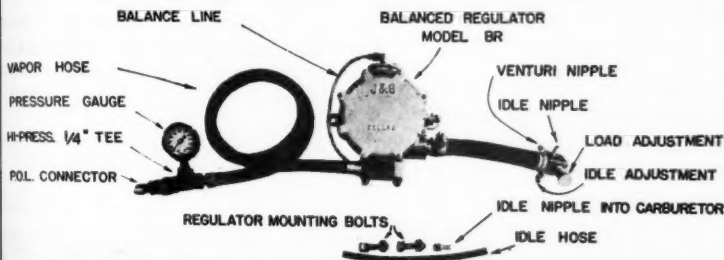
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low-cost ALGAS Conversion.



toward "rich." If this does not overcome the trouble, the regulator is not passing enough fuel.

Regulators are delicate instruments, and should be serviced only by trained servicemen. They are not difficult to clean and repair if you know what you are doing. The valve seats, however, are very finely ground, and even a small scratch or nick will cause them to leak. In some makes, special tools are required for disassembly and reassembly. These units should never be opened up except by trained men working with the proper equipment.

Check Carburetor with Analyzer

With the regulator in good condition, you can now adjust the carburetor, and be sure that it is right. The accepted instrument for checking carburetor adjustments is the portable exhaust gas analyzer. Some confusion exists regarding the use of a standard gasoline exhaust gas analyzer on LP-Gas carburetors.

There has recently been an air-fuel-ratio analyzer offered which has two scales, the conventional gasoline scale, and a special LP-Gas scale. It is true that the gasoline scale does not give an exact reading of LP-Gas combustion. If you want to split hairs, the so-called LP-Gas scale may be nearly as far off, with certain LP-Gas fuels.

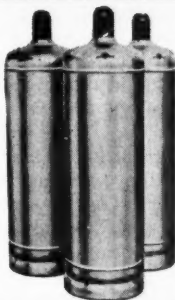
Based on chemical analysis, there is almost as much difference between accurate scales for pure propane and pure butane as there is between accurate scales for pure

MASTER TANK

DELIVERS PROMPTLY

100# I.C.C. CYLINDERS

Tare Wt. 132 lbs.
Diameter — 14 7/8"
Height — 45 1/2"

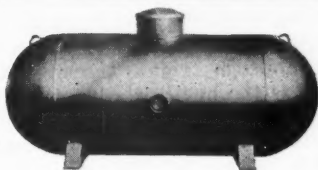
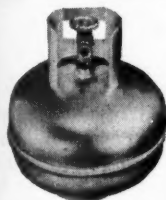


Continual improvement in both product design and production facilities enables Master Tank to maintain their leadership in both quality and ability to deliver your requirements from 20-lb. Cylinders to 30,000-gallon Bulk Storage Plants.

All Master Equipment is built in strict compliance with I.C.C., API-ASME and ASME codes — automatically welded, x-ray controlled, hydrostatically and air tested, and fully inspected by a recognized agency during fabrication.

20# I.C.C. CYLINDERS

Tare Wt. 39 lbs.
Diameter — 14 7/8"
Height — 11 1/2"



DOMESTIC SYSTEMS

Butane Systems — U-69 construction — 101 lbs. working pressure — above or underground.

Propane Systems — U-69 construction — 200 lbs. working pressure — above or underground.

Capacity	Butane	Propane
150 gal.	24" x 6'11"	24" x 6'11"
250 gal.	30" x 7' 7"	30" x 7' 7"
288 gal.	None	24" x 13' 1"
363 gal.	36" x 7' 3"	36" x 7' 3"
500 gal.	36" x 10' 2"	41" x 8' 8"
1000 gal.	42" x 14'10"	46" x 12' 6"

200# CAPACITY PROPANE CYLINDERS

200# W.P.
U-69 A.S.M.E.
57 Water Gallon
Capacity



butane and gasoline. Most commercially available LP-Gas is a mixture, and it is different in different parts of the country, with seasonal changes in the North. The production of the dual-scale instrument has not settled anything—it has merely added to the confusion. Let's look at the practical angles.

The exhaust gas analyzer with the original gasoline scale is in almost universal use. The LP-Gas carburetor manufacturers have all put out service instructions giving the desirable air-fuel ratios for the carburetors, *as read on the standard gasoline scale.*

Follow Gasoline Scale

Does it matter if the actual ratios with the LP-Gas fuel are not what the meter says they are? If the carburetor is set to the readings specified, as shown on the gasoline scale, the results are right. Therefore, if you use the dual scale instrument, ignore the LP-Gas scale and work entirely with the gasoline scale, which is the one that the carburetor manufacturers make their recommendations to fit.

These analyzers are nearly all of the "hot wire" or Wheatstone Bridge type. When in good condition, and properly balanced, they all do a good job of measuring ratios in the range from 12:1 up to 14:1. Readings richer than 12:1 are of no interest, as such a setting would be wasteful with any fuel. At the other end of the scale, beyond 14:1, BE CAREFUL.

At indicated air-fuel ratios up around 14.5:1, the meter can be very misleading. The chemical com-

position in lean mixtures is such that the meter should reach its highest reading at an actual air-fuel ratio of 14.6:1. Some meters will show a higher reading, but this cannot be accurate—at mixtures leaner than 14.6:1 the meter reverses and shows a richer reading. An air-fuel ratio of 17:1, which will still fire regularly in most butane - propane engines, shows a reading of about 14.2:1 with an accurate meter of this type.

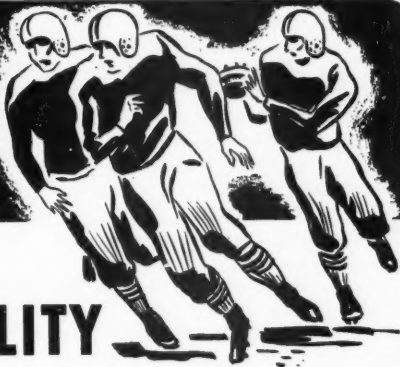
In spite of this, the meter is a reliable guide up to nearly 14.5:1, if it is used correctly. Since the part-load setting is up in this range, you should know how to use the instrument to get a reading that you may be sure is right. The procedure with those carburetors equipped with "cruising," or part-load, adjustment are as follows:

How to Get Readings

1. (Recommended.) With vacuum gauge connected to manifold, exhaust gas analyzer connected to tail pipe, the carburetor air cleaner in place, and engine running, set the throttle to hold engine speed equivalent to road speed of 30 to 40 miles per hour. Screw adjustment toward the *rich* side until the reading is 13.5:1. Now screw it *slowly* toward the lean side, watching both instruments. The vacuum gauge should reach its highest reading for that particular engine a little below 14:1. This will vary a little with different engines. At this point note the reading of the analyzer.

Continue to lean the adjustment

Teamwork



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LP GAS EQUIPMENT**

Yes, our goal is to score a touchdown with a dependable Butane-Propane service. Beacon's policy of efficient teamwork within the company assures dealers everywhere of dependability and quick delivery on their Butane-Propane and LP gas equipment orders. Join the hundreds of satisfied dealers and order from Beacon.

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CHICAGO 4, ILLINOIS**

OCTOBER — 1949

123

out slowly until the analyzer gives a reading .5 of an air-fuel ratio leaner than it showed at the point of highest vacuum. For example, if highest vacuum occurs at 13.8:1, the final setting should be 14.3:1. See that the meter still gives this same reading for at least a minute after final adjustment.

2. (Optional method—not so accurate, and takes more time.) Without vacuum gauge, proceed as above, making mixture rich and leaning it out slowly. Turn adjustment only a very slight amount each time after passing 14:1, and waiting to be absolutely sure that the reading is correct. For passenger cars and light delivery units, make the final setting between 14.3 and 14.5. Heavy duty engines should not be set leaner than 14.2:1.

Take Plenty of Time

The above procedures are designed to prevent getting mixtures leaner than the point where the meter reverses. If you hurry your adjustment you may go too far. It takes time for these meters to react. The gas must go all the way out through the exhaust pipe, then all the way up through the hose to the meter.

If you go through the adjustment too fast, you may get a reversed reading without knowing it. A ratio of 17:1, giving a meter reading of about 14.2, is entirely possible. The engine will run, but the power will be low, and the customer will not like it. If it runs that way long enough, the valves will burn, and it may not take very many days.

Now, suppose you put the analyzer on a vehicle that has been in service, and you find that the cruising mixture reading is 14.3:1. Not bad! Or is it? It might be the reading produced by a mixture of about 16:1, which is very bad.

There is an easy way to find out. Take a rag and start wrapping it around the air inlet of the air filter (always make air-fuel ratio tests with the filter on the carburetor). Make it produce the effect of slowly choking the carburetor, and watch the meter carefully. If the meter reading becomes richer, and there is very little change in engine speed, you have the true reading and a safe ratio.

If, however, the engine speeds up noticeably, and the meter says that the mixture is getting leaner, the part-load adjustment is in the dangerously lean range. It should be reset, using one of the above procedures. It is better to use the vacuum gauge method, as this will tell you whether the valves are still good or already burned.

As is the case in gasoline carburetion, all LP-Gas carburetors are designed to provide the correct mixtures for all three operating ranges of the engine—idling, part-load, and full-load. A few models are designed so two adjustments take care of all three conditions—in these cases two controls are built together, and bear a fixed relation to each other, so a single adjusting screw takes care of both. Usually, all three “circuits” are adjusted separately, as in gasoline carburetion.

Manufacturers have been unani-

mous in their recommendations of mixture ratios for their LP-Gas carburetors. Idling, about 13:1; part-load, between 14:1 and 14.5:1; full-load, 13:1.

While it is possible for an experienced man to adjust any of these carburetors without instruments, and arrive at settings which give satisfactory performance, the only way to be sure of having both performance and economy is to do the work with instruments. For the most exact results we recommend combined use of the vacuum gauge and the exhaust analyzer.

Use of Vacuum Gauge

The vacuum gauge is a much better and quicker instrument for setting the idle adjustment. You set the screw to give the highest possible vacuum reading, and that is it. It may not be exactly 13:1, but it will be the exact, best setting, not a near miss.

As previously explained, the vacuum gauge should be used in conjunction with the analyzer for the part-load setting. This is the most important setting of all, as it is through this circuit that most of the fuel is drawn into the engine. If the adjustment is too lean, it can result in burned valves, and—believe it or not—excessive consumption of fuel. If it is too rich, this is your greatest opportunity to waste fuel.

The analyzer alone should be used for the full-load setting. The vacuum gauge is no help here. Make it read exactly 13:1.

There is considerable variation in the design of the different makes

and models of LP-Gas carburetors. This results in a variation in the locations and types of adjustments. Detailed instructions for the adjustment of all the more popular makes and models will be given in this department in a later issue of BUTANE-PROPANE News.

ICC Authorizes Railroads To Increase Freight Rates

According to a recent LPGA bulletin, by order of the Interstate Commerce Commission in Ex Parte 168, the carriers have been authorized to increase freight rates within Eastern territory 10%; within Southern territory 10%; within Zone 1 Western Trunk Line territory 9%; within the remainder of Western territory 8%; interterritorially 9%, except between Eastern and Southern territory 10%.

These increases include the interim increases of 6%, 5% and 4% authorized in December, 1948. There is no maximum charge prescribed for petroleum products, including LP-Gas, and consequently LP-Gas will take full increase.

The Association of American Railroads has announced that it would put the increased rates into effect Sept. 1.

New Yorker Wins Award For Selling Water Heaters

Seibert D. Stotz of Schenectady, N.Y., salesman for Suburban Propane Gas Corp., of Albany, was awarded a \$300 savings bond and a wrist watch as the outstanding gas water heater salesman in the Albany district.

The award was presented by Clifton W. Vogt, district sales manager of the firm.

Illinois Dealer Capitalizes On

Trend to LP-Gas for House Heating

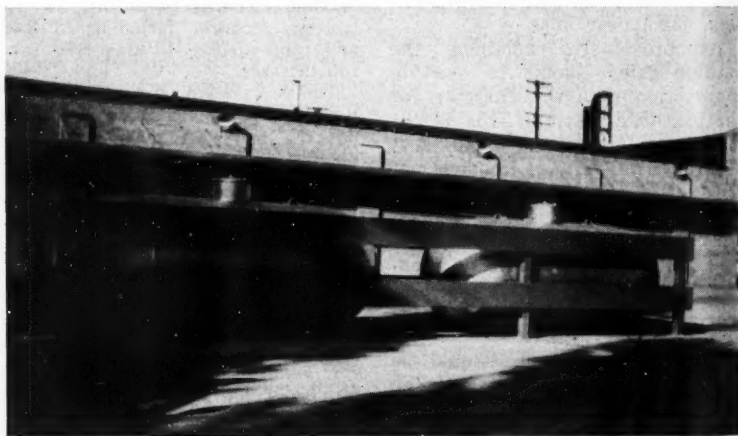
By HARRY L. SPOONER

ALTHOUGH at present water heater sales surpass all other appliances for Matt Paluska & Sons, East Peoria, Ill., there is a definite trend toward the use of LP-Gas for space heating, says Willard Paluska.

The Paluska firm consists of the elder Paluska and four sons, Willard, Lewis, Gilbert and Ralph. The concern is primarily in the plumbing business. Matt Paluska is a master plumber, having started in the plumbing business 45 years ago at Roanoke, Ill. He moved to East Peoria in 1931. As the various sons became old enough, they also learned the plumb-

ers' trade. In addition to the four sons interested in the business with their father, there are two other sons who are also journeyman plumbers.

In 1935 the firm took on the "Dri-Gas" franchise for the East Peoria and Peoria areas. During the war, when the plumbing business was down, the sales of bottled gas produced a steady income. Although bottled gas appliances were impossible to get, the sales of gas made an excellent sideline to the plumbing busi-



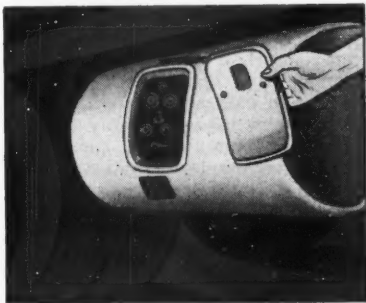
These two 1000-gal. tanks furnish metered gas for heating the Kroger store in East Peoria, Ill.

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All valves and fittings of
AMERICAN Mobile Safety Tank
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Vital valves and fittings can't be knocked off. Cover plate protects against road grime and provides accessibility. American Safety Tank gives you maximum fuel capacity in minimum space for longer, more profitable hauls. Quality-built to API-ASME or ASME codes. Low initial cost, economical operation and long life. Hundreds in use. Order now.



"CRAFTSMEN IN STEEL"

AMERICAN PIPE & STEEL CORPORATION

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ness. Since the war, the rapid development of subdivisions beyond the gas mains in the area has made an attractive field for both bottled gas and appliances.

The appliances carried include Roper ranges, Servel refrigerators and water heaters, and Ruud, Permaglas and Crane water heaters. This year water heaters have far exceeded other appliances in sales. The company has sold more Permaglas heaters than most other dealers in the central Illinois section.

Several methods of promotion are used. One of these is display newspaper advertising in the weekly East Peoria "Courier-Clarion." The firm has an ad in every issue. These ads alternate in covering the different phases of the firm's business, with bottled gas and appliances sharing.

Capitalizes on Floor Displays

Floor displays of all the various appliances handled are used all the time. The store is located at 152 West Washington St., in the shopping district of East Peoria. It has a spacious show room in front where a sample of every appliance is shown, along with bathroom equipment.

Yardsticks are given away to customers and prospective customers. These have the firm's name printed on them along with the nature of the business—"Plumbing and Heating—Appliances," and the slogan, "We Keep Your Wife in Hot Water all the Time."

The firm name appears in black-faced type in the classified section of the telephone book under the classification of "Bottled Gas."

The firm gets considerable publicity from a bowling team, which is a member of a junior loop. More than the usual amount of publicity comes from this team as it is made up of the six Paluska brothers.

While no solicitor has been employed since the war, much soliciting is done by the members of the firm in connection with their plumbing work. The firm does a lot of plumbing in subdivisions beyond the gas mains, both new and repair. By getting into homes, they have an opportunity to see if a range and other appliances are needed and suggest to owners that they can take care of their entire needs. Thus, the bottled gas and appliance business is a natural accessory to the plumbing business.

How Gas Outpoints Oil

This natural tie-in with the plumbing business is even more noticeable in the installation of bottled gas for space heating. The firm stresses bottled gas heating as being as cheap as oil, with the further advantages of cleanliness; maintenance cost, which is much less because of much fewer mechanical parts to wear out or to get out of order; and continued operation in time of storms.

A knowledge of plumbing has been very useful in making space heating installations. For instance, much care is needed to use the right size of copper pipe from the tank to the heating appliance to avoid a drop in pressure.

Two recent installations of space heating are good examples of where plumbing knowledge comes in handy. While East Peoria has gas mains, due to the shortage of gas, the new Kroger store in the city is not eligible for a city gas installation. Therefore, the Paluska firm made a bottled gas installation for it. They installed two 1000-gallon tanks on the Kroger parking lot. These are protected from cars by a barricade on each side. The tanks are metered so Kroger's pay only for what gas is used instead of what is put into the

**Expand Your Market
To Include L. P. Gas
For Heating**

**Sell CLOW
Gas-Fired Unit Heaters
For Business and Industry**

**For Use With
Liquefied Petroleum Gas
MADE IN 3 SIZES**

85,000 B.t.u. per hour input
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Every time you sell a Clow Gas-Fired Unit Heater to a business establishment, you've secured a large-volume customer for your L.P. gas sales. Here's your big *new* market, today . . . L.P. gas for *heating* in stores, factories, warehouses, filling stations, garages, bowling alleys and other commercial buildings. Remember summer time is replacement time. Start selling now for fall installation.

**These Exclusive Clow Features
Make Your Selling Job Easier**

- Longer life with ONE PIECE Cast Iron heat exchanger.
- READILY ACCESSIBLE for easy cleaning and servicing.
- QUIET operation. PLEASING design. ATTRACTIVE finish.

**Write for free Copies of
Descriptive Folders Showing Price.**

JAMES B. CLOW & SONS
201-299 N. Talman Ave. • Chicago 80, Ill.

tanks. The bottled gas installation heats the entire 60x120-foot store with satisfaction. This is achieved by the use of three unit heaters in different parts of the store.

The other installation is in the swanky Stratford Aire subdivision, which also has gas mains but in which many new home owners are not eligible for city gas. An installation was made in a new house serving as the office of a realty concern to show prospective customers that ineligibility for city gas need not prevent them from having all the advantages of city gas. This installation is of a furnace with bottled gas burner.

In making space heating installations, the firm installs no tanks of less than 1000 gallons. This is for the benefit of the home owner, himself, as it is often difficult in the winter time to make deliveries in these new subdivisions due to storm, snow and unpaved streets.

To promote space heating, in addition to the other promotional methods mentioned, the firm is using special spot radio announcements three times a week over station WWXL featuring space heating exclusively.

"Home heating with LP-Gas," says Willard Paluska, "is opening up like a new field. More and more home owners are installing it. Because of our plumbing business, we get a good opportunity to stress home heating with LP-Gas to home owners. We figure that most of those who install this gas for home heating will eventually become all-gas-homes, with water heaters and refrigerators, as the latter, when used in connection with home heating, get a better rate."

The Paluska firm itself uses bottled gas in the plumbing business to sweat copper joints. It uses a 20-pound cylinder of gas with nozzle, gauge, etc., like an acetylene torch.

Gas Dealers Use Six Pages In Local Paper to Tell Story

A full six-page section of the *Picayune Item*, newspaper for the city of Picayune, Miss., was devoted last month to announcements and stories concerning the new sales room and headquarters of Quick & Grice, Mississippi butane dealers.

The company, which also has offices in Laurel, Hattiesburg and Shubuta, Miss., and is building a plant in Poplarville, handles a complete line of LP-Gas appliances and washing machines, freezers, and space heaters. C. Hooker Quick and John A. Grice are operators of the firm.

In the *Item's* presentation, there was included a discussion of the services available to customers of the company, notice that premiums (a set of china, cookware, etc.) are available to new customers, a history of the company, description of physical facilities, and advertisements portraying the many nationally known brands of appliances carried in stock.

A special feature of the company's operation is its financing plan, under which customers may take 26 months to pay off purchases—including labor costs incurred in installation.

Forms Division to Sell "Pyrofax" Gas in Canada

The formation of a division to handle sales of "Pyrofax" gas in Canada has been announced by Carbide and Carbon Chemicals, Ltd., of Toronto.

Dominion Oxygen Co. Limited, an affiliated unit of Union Carbide and Carbon Corp., has until now distributed this bottled gas. This company will continue to operate the bulk plant and cylinder filling station located in Montreal.

New Booklet Discusses Uses Of LP-Gas for Central Plants

A specially bound booklet prepared "to assist those who are not familiar with the use of LP-Gas" in central plant and standby operation, has been prepared by E. E. Hawley, chief engineer of Gasair Associates, specialists in LP-Gas equipment. The book discusses the use of LP-Gas by utilities and others for such purposes as town plant operation, enriching, supplying industrial plants, standby, for use during conversions, serving fringe areas and areas beyond the mains, and for peak loads.

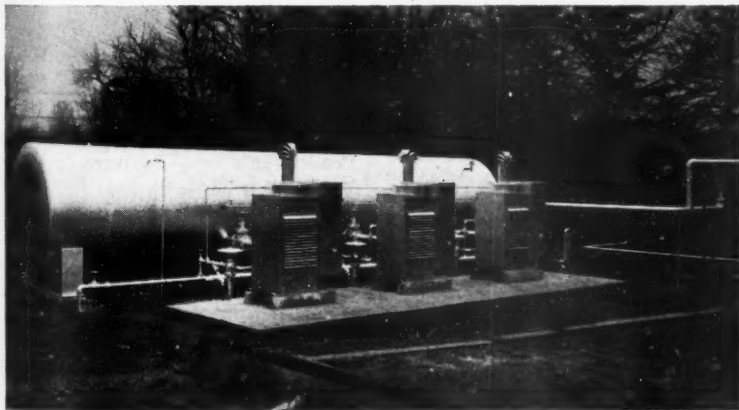
The 35-page outline has been broken down into the following departments: Propane gas plants, covering site, tanks, valves and fittings, liquid transfer, carburetion, vaporization, station metering, plant piping, and gas storage, and "Distribution," in which Mr. Hawley presents valuable information on types, old systems, new systems, and appliance conversions.

This publication is available from Gasair Associates, 68 Post St., San Francisco, for \$2 per copy.

Dri-Gas Corp. Opens Bulk Plant In Ellettsville, Indiana

B. D. Geroy, president of the Dri-Gas Corp., Chicago, has recently announced the completion of that company's sixth bulk plant situated in Ellettsville, Ind. This latest Dri-Gas distributing facility is strategically located to serve their entire central and southern Indiana and northern Kentucky areas with both cylinder and bulk delivery.

This newest Dri-Gas plant is patterned substantially after four other new plants built since the war, and it incorporates several structural and operating features not generally found in establishments of this kind. The main cylinder filling building floor is at ground level, and cylinders are transferred to and from the com-



This is a typical "Gasair" installation, showing the "Gasair" machine and surge tank.



The 30,000-gal. bulk plant of Dri-Gas Corp.'s newly completed plant at Ellettsville, Ind.

pany's transport trucks by means of large hydraulic hoists.

This ground level construction has also made it possible to effectively utilize radiant heating in the floors of both the office and cylinder processing buildings. A propane fired boiler in the office heats the water which is pumped through the copper coil floor grid systems. The company reports a considerable saving in plant heating expense by this method.

Gas is stored in a 30,000 gallon tank at this new plant. Gas transfer from tank car to tank truck or storage is made by means of a differential compressor. Cylinders are filled on automatically controlled scales by means of a dual system of Corken centrifugal pumps. The plant also has complete equipment for cylinder refinishing and hydrostatic testing.

The Ellettsville plant is managed by David F. Colpitts.

The Dri-Gas Corporation, in addition to this new Indiana plant, now has similar facilities in Chicago; Celina, Ohio; Perry, Mich.; Taylorville, Ill.; and Stevens Point, Wis. A seventh plant is currently under con-

struction in Clinton, Iowa, and is scheduled for full operation to serve eastern Iowa, western Illinois, and southwestern Wisconsin by early fall.

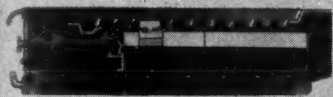
Geo. F. Wells, Jr., Will Manage Two Eastern Gas Companies

It is announced by H. Emerson Thomas, president of Valley Cities Gas Co., Sayre, Pa., and The Gas Light Co. of Waverly, Waverly, N. Y., that D. C. Meyer, manager of those companies, has resigned. The new manager is George F. Wells, Jr., who has been general manager of the Pennsylvania and Southern properties and located in the Westfield, N. J., office. Mr. Wells has been under doctor's orders for the past year to take it easier.

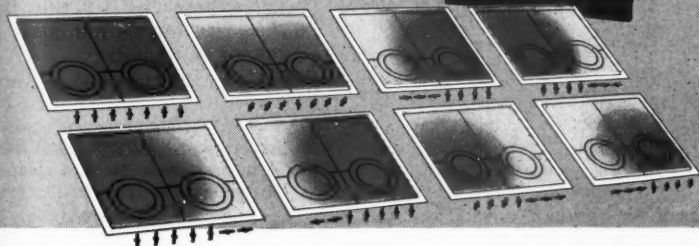
The above properties are the largest operating unit under the ownership and direction of the Pennsylvania and Southern Gas Co. No replacement has as yet been made for the position of general manager of the Pennsylvania and Southern Gas Co. Mr. Thomas in the meantime will handle these duties.

GET GARLAND **THE LEADER!**

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7 FRONT FIRED
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**Greatest feature on
any heavy duty range!**



Garland gives you the heat you want—where you want it. For instead of two or four burners, you get seven. This gives you all front—the cook—With a of heat different

THIS AD is part of the biggest advertising program in the commercial cooking equipment industry for gas-fired appliances. It appears this month in leading publications read by your customers.

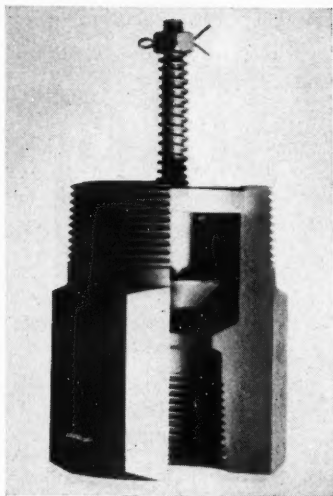
above and are equipped for use with manufactured, natural or L-P gases. tions you rol helps over cost. ose the able in

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Heavy Duty Ranges • Restaurant Ranges • Broilers • Deep Fat Fryers • Toasters
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PRODUCTS OF DETROIT-MICHIGAN STOVE CO., DETROIT 31, MICHIGAN

PRODUCTS



Excess Flow Valves

Metal Goods Manufacturing Co.,
106-110 South Park Ave., Bartlesville, Okla.

Model: No. 40 and No. 41.

Application: Originally developed in a few models for use on skid tanks and truck tanks supplying anhydrous ammonia to tractor fertilizer applicators in the cotton fields of the South. The line has been extended to cover more than 60 combinations of sizes and threads. Soon all will be made available for use with liquefied petroleum gases. They are suitable for dual ammonia-propane service.

Description: Made of steel and

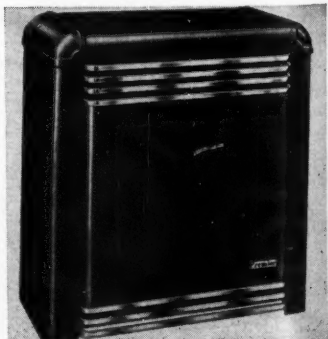
stainless steel. Cadmium plated body. Bodies are designed in one piece construction without joints, resulting in a valve of great strength and rigidity. The two basic models, each with its many combinations of thread sizes, make the valves suitable for both liquid and vapor lines on tanks from very large to very small sizes. On special order, the valves can be made entirely of stainless steel, monel, or other materials to meet highly corrosive conditions.

Vented Gas Heater

Premier Stove Co., Belleville, Ill.

Models: 24V (24,000 Btu input) and 36V (36,000 Btu input).

Description: An exclusive feature of the new Premier heater is the cast iron burner which can be removed easily before or after installation. Should burner ports require cleaning, the burner can be removed through



the heater door. Raised burner ports provide better combustion and more economical operation.

Model 24V is 26 in. high, 26 in. wide and 13 in. deep; 36V is 30 in. high, 29 in. wide, and 13 in. deep.

The heater, AGA-approved for LP-Gas, natural and manufactured, is finished in brown porcelain with chrome trim.



Domestic Range

Norge Division, Borg-Warner Corp., Detroit, Mich.

Model: N-5.

Description: This new model is equipped with the new Norge "Spirolator" burners, approved by AGA for use with LP-Gas, mixed, natural and manufactured gases, with only a simple valve adjustment.

Many improved features have been included, among them: easy-to-clean, removable chrome burner trays; newly-designed top grates; top lighter; heavy deluxe chrome hardware; chrome-trimmed valve handles. The front and exterior panels are finished

in titanium porcelain, providing a complete acid-resisting exterior.

Norge also announces that a new deluxe, streamlined package designed especially for the above model includes an electric clock, interval timer, fluorescent lamp and appliance outlet.

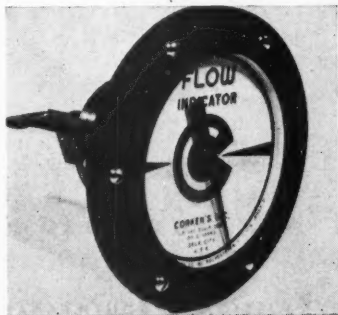
Sight Flow Indicator

Corken's, Inc., 206 E. Grand, Oklahoma City, Okla.

Application: To show direction and nature of the flow of liquid in a horizontal line.

Description: Designed especially for the LP-Gas industry, the instrument not only shows direction of flow, it also indicates whether turbulent, partial, or full flow is occurring. Its construction makes it practical for use on transports or delivery trucks.

The visible indicating mechanism is operated by a magnet, permitting it to be completely separated from the liquid stream. The actuating mechanism, constructed for 300-lb. working pressure, is enclosed in the part of the instrument which screws into a pipe tee. The complete separation of the actuating mechanism

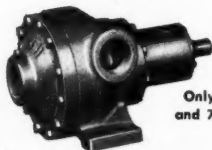


No.4

IN A SERIES

DISCUSSING THE MOST EFFECTIVE SERVICE RANGE FOR

SMITH PRECISION Butane-Propane PUMPS



Only 7" high
and 7 1/2" wide.

MODEL TC-1044

RATED TRANSFER CAPACITY

20 GPM AT 500 RPM • 1 1/2" PIPE SIZE

Made especially for small delivery trucks and emergency fuel delivery vehicles. Ideal for filling trailer bottles, single 100 lb. cylinders, and other small consumer tanks from a truck. The TC-1044 pump will develop as much pressure as the larger Smith Truck Pumps, and will fill small tanks just as fast. This pump is a small capacity unit and is not usually recommended for filling the larger tanks, since its delivery rate never exceeds 15-20 GPM.

For best results, specify a truck power takeoff that is geared to drive the pump at its rated shaft speed of 500 RPM. The tank liquid outlet should have a 2" or larger excess flow valve.

Model TC-1044, as well as all other Smith Precision Pumps, is equipped with the exclusive leak-proof, self-adjusting packing that requires no lubrication, no tightening of adjusting screws, no other servicing of any kind. This saves money by greatly reducing product loss and labor expense, as well as eliminating the fire hazard.

13 models of Smith Pumps fill every need. Capacities range from 20 to 150 GPM, at shaft speeds of 500, 900, and 1800 RPM. Write to the factory for descriptive literature and price information.

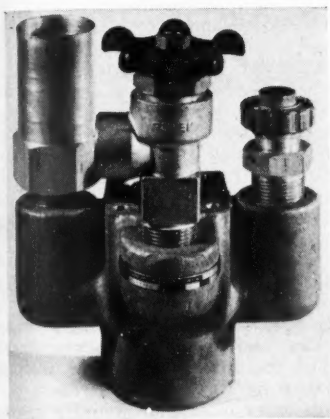


SMITH

PRECISION PRODUCTS COMPANY

1135 MISSION ST., SOUTH PASADENA, CALIF. • PHONE PYRAMID 12293

from the indicator assures safety and freedom from leakage. In case of dial breakage, repair can be made without shutdown.



Multiple Valve Units

L. C. Roney, Inc., 1511 W. Florence Ave., Inglewood, Calif.

Model: No. 1273 and No. 1274.

Application: These Roney multiple valve units are for vapor risers of two riser pipe systems. Each unit has one or two safety relief valves, a vapor return valve, a service line shutoff valve and a connection for a slip tube or float type liquid level gauge. The filler valve is installed on a separate riser so that full-size liquid unloading lines can be used when desired. Liquid cannot enter vapor withdrawal outlets.

Description: The body of each unit is a heavy brass casting machined with a 1½-in. internal pipe thread for mounting on a short nipple or riser pipe. The gauge opening in the

center of the casting is for the standard size float gauge. The three side openings have ¾-in. internal pipe threads for the accessories. All accessories are installed, tested and proven leak tight before shipment.

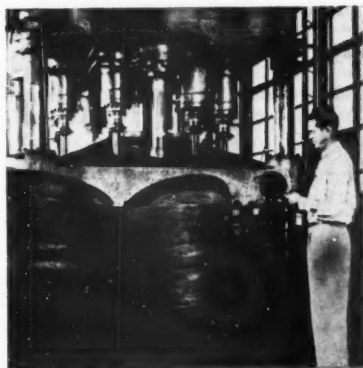
The No. 1273 multiple valve unit with one relief valve carries a flow rating on the Underwriters Label, making it acceptable for a 200 psi DWP aboveground container with a "D x U" not exceeding 20.7 and an underground container with "D x U" not exceeding 71.6. For the same type of service the No. 1274 unit with two safety relief valves is acceptable for aboveground containers with "D x U" not in excess of 40.5 and for underground not in excess of 139.3.

Tank Heads

Buehler Tank & Welding Works, 5000 Pacific Blvd., Los Angeles 11.

Application: For use with LP-Gas and other high pressure gas and liquid tanks.

Description: These new heads, available in hemispherical and semi-elliptical shapes, range in size from



8 in. to 42 in. by increments of 2 in., and from 12-gauge to 7/16 in. in thickness. They are built to meet ASME U-201 and API-ASME codes.

The heads are of uniform thickness and are unusually smooth on the surfaces, according to the manufacturer.

Equipment Catalog

To facilitate ordering, S. H. Leggett Co., Marshall, Mich., has issued Catalog No. A-49-1, illustrating and describing all items available from the company.

The company manufactures and distributes brass pipe and tube fittings for many industries, including LP-Gas. It also stocks a large assortment of cocks, valves and tubing.

Among many items listed are gas range connectors; utility or radiant connectors; SAE flared fittings; inverted flared fittings; special radiant fittings; ball solderless or compression fittings; brass pipe fittings; orifices; needle valves; two- and three-way shutoff cocks, etc.

Other items listed in the catalog include double compression fittings; special automotive fittings; drain cocks; globe valves; temperature and pressure relief valves; special trailer coach combinations; pipe and tube benders; flaring and cutting tools; and joint compounds.

The catalog is obtainable from the company at 325 High St., Marshall, Mich.

American Meter Bulletin

American Meter Co. announces its new Series A-88 Pneumatic Instruments for transmitting and controlling flow, pressure and liquid level.

The traditional problems of maintenance and service have been simplified by reducing the number of

pivot points and moving parts to a minimum. By unitizing sub-assemblies and standardizing parts, a high degree of interchangeability has been achieved, making the Series A-88 readily convertible to changing conditions and applications.

Other advantages which have been suggested by the industry and incorporated in the Series A-88 Instruments include a positioning device which simplifies linkage alignment in the field; a spring-closing, bellows-sealed reset valve calibrated according to time; and a nozzle assembly which permits adjustment of the nozzle without breaking tubing connections.

American Meter Co. also points out that the relay includes a damping device for smooth operation and is equipped with a self-cleaning primary orifice and a by-pass arrangement which permits changing to manual control by turning one screw.

In order to further simplify operation, the Series A-88 Instruments are arranged so that they can be reversed by shifting one end of one link without disturbing other adjustments.

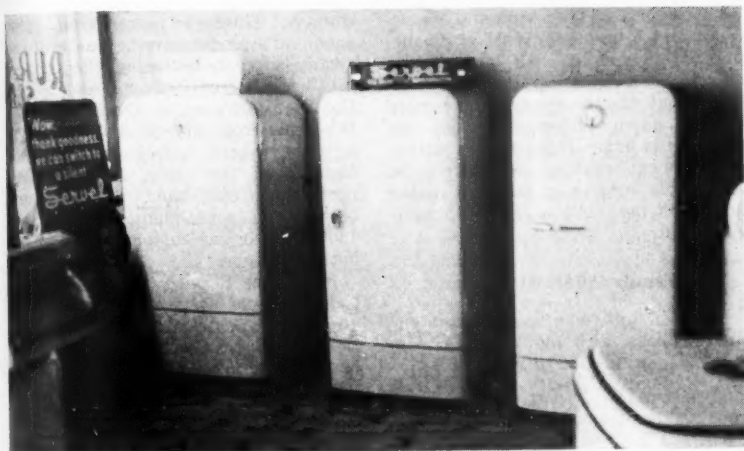
For complete information write for Bulletin CT-49.

Combustion Safeguard Bulletin

The Bristol Co., Waterbury, Conn., has just published a bulletin, No. W1816, describing its new combustion safeguard, known as the "Bristol Electronic Pyrotrol."

The new bulletin explains the application of the Pyrotrol in protecting gas-fired ovens, furnaces, kilns, boilers, dryers, kettles, and other similar industrial heating equipment from the danger of gas explosions during ignition, operation, and shut-off.

Copies of the bulletin are available from The Bristol Co.



Servel refrigerators are constant traffic builders into store of Rural Gas Service.

Personal Contact, Store Demonstration Give Gas Dealer Edge on Competition

By Gene C. Creighton

CONSISTENT selling suggestion on modern LP-Gas appliances, despite heavy electrical competition, has resulted in an eye-appealing modern appliance showroom at Rural Gas Service, operated by Paul Williams in Arvada, Colo.

Despite the fact that his bottled gas business is located in the center of one of Colorado's most heavily electrified farming districts, Mr. Williams has steadily built up the use of LP-Gas to the point that he now has 1300 satisfied gas accounts. All of these are potential appliance prospects, Mr. Williams believes, and so during 1948 he converted an old store

building into an efficient appliance display room.

The shop features departmentalized appliance displays, including rows of Servel refrigerators on the left, a complete package gas kitchen designed for Colorado farm houses in the right, rear corner. A portable 25-pound bottle and quick-hookup valve connection make it possible for the showroom to quickly demonstrate any appliance when the customer is

brought into the showroom. No attempt has been made to set up financing arrangements with local banks, as do competing appliance dealerships, but the company has carried its own paper during the entire history of the firm. This permits setting up payment systems to match the seasonable income of farmers in the area, and has built a lot of valuable good will.

Family Affair at First

Mr. Williams, who operates the entire business with his wife and son, started out in 1937, when LP-Gas was a relative rarity in Jefferson

county. Through painstaking, personal calls on farmers he has enjoyed steady success, becoming the largest retail account of Denver Propane Gas Co. in a little more than 10 years. While metered, underground tank systems have been widely used in some sections of the state, Mr. Williams prefers the easy-handling, 100-pound bottle, and consequently all of the 1300 regular gas customers are using bottle hookups.

Rural Gas Service handles installation and gas service work for several furniture firms in this section of Colorado on a cooperative basis, which has worked out to mutual satisfaction. "One furniture firm is so active



Oze corner of appliance showroom of Arvada (Colo.) dealer.

with appliance promotion that it sends us on the average of one new customer per selling day," Mr. Williams states. "Naturally we bend over backwards to give each new customer plenty of helpful installation and repair service, along with gas delivery."

Personal Solicitation Brings Sales

Ninety per cent of the dealer's appliance sales are made personally through calls on the pre-sold gas customer list. "We keep hammering away at the gas user to enjoy full convenience of LP-Gas," says Mr. Williams. "About the strongest selling point is the lower gas rate which is possible by adding extra appliances, prorated over the whole. We point out to users that a substantial saving in overall gas charges comes with adding gas cooking, water heating or refrigeration to whatever original appliances they have installed, and manage to mention it on all gas deliveries. Perhaps we won't make the sale immediately, but we'll eventually sell the farmer, this year or the year after." In his office, Mr. Williams maintains a card file with complete information on every gas user, which gives a history of operating costs, payments, additional prospects referred, etc. These figures are always useful in convincing the prospect that he will benefit by additional appliance installation.

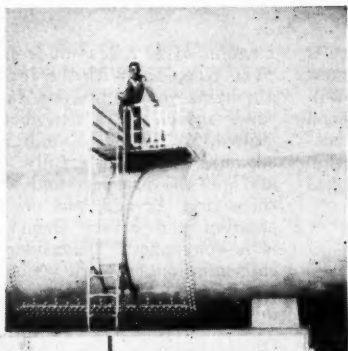
The company makes it a routine policy to ask every satisfied user at every stop for the names of new prospects for appliances. Such leads, usually derived from visits by neighbors to the home, are a fertile source of new accounts, and once or twice a year total enough in number to justify separate selling trips, covering

a radius of 20 miles out from Arvada. "The Keep-Up-With-the-Joneses" angle helps in selling one farmer the same equipment a neighbor has installed, Mr. Williams smilingly pointed out. "We'll cheerfully drive out and get the prospect and wife, drive them into Arvada, put on a demonstration and return them whenever it is convenient. I consider all such calls missionary work which will pay dividends in the future, even when an immediate sale isn't forthcoming."

Demonstrations Supplant Advertising

Selling via the "personality route" has made it unnecessary for the Colorado dealer to use much advertising. His total expenditure over a 10-year period averaged less than \$100 per year until 1948, when he put extra newspaper promotion on the appliance store. With plenty of drop-in traffic and active demonstrations, sales jumped and have kept on climbing. His heaviest volume is sold in five nationally advertised range lines, with water heaters running a close second. Gas refrigerator sales are picking up. "We concentrate in the medium price market and specialize in the easy-cooking features of modern ranges," Mr. Williams indicated.

The Rocky Mountain dealer is proud of the fact that he has, on several occasions, replaced electric ranges and refrigerators with bottled gas appliances. While much REA electrification has been installed, it has never kept pace with new home construction in the area, with the result that many electrical appliances have been out of service for days at a time, when transformers or substations are overloaded. Contrasting the reliability of LP-Gas equipment has made many additional sales.



Utiligas Headquarters, Kensington, Conn.



TOP: Perley Stoughton, on top of his 20,000-gal. bulk plant. **2nd from TOP:** The 1750-gal. propane tank truck used for deliveries. **3rd from TOP:** Little Joanne and Mrs. Stoughton making morning inspection of equipment.

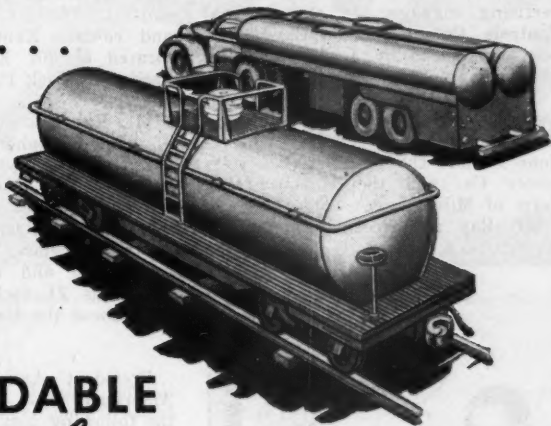


BELOW: Combination office and living quarters. Housing shortage forced the Stoughtons to live at the office.



butane—propane
DEPENDABILITY

means . . .



UPG

DEPENDABLE

supply . . .

Diversified production from major LP-Gas manufacturers assures an ample supply to fill your needs even during seasonal emergencies.

UPG

DEPENDABLE

delivery . . .

United Petroleum Gas operates a large and highly efficient fleet of tank cars and trucks to deliver your LP-Gas requirement . . . where it's needed . . . when it's needed!



UNITED PETROLEUM GAS COMPANY

806 Andrus Building • Minneapolis 2, Minn.

THE TRADE

Appointment of W. E. Conkright to position of sales promotion and advertising manager of the General Controls Co., Glendale, Calif., has been announced by J. F. Ray, vice president in charge of sales.

Mr. Conkright has had long experience in the industrial advertising and promotional fields. Former connections include the International Harvester Co. and the Harnischfeger Corp. of Milwaukee.

Mr. Ray also recently announced

the opening of a new factory branch office in Cincinnati, Ohio, to service southern Ohio, southeastern Indiana and central Kentucky. This office, located at 307 E. 4th St., will be headed by Jack Prutow, branch manager.

Mr. Ray also reported the moving of their Oklahoma City office to Tulsa. The new address for this branch is 1427 E. 6th St. O. D. Shad-dox will continue as branch manager.

General Controls Co., manufacturers of automatic pressure, temperature, level and flow controls, now maintains 21 factory branch offices throughout the United States.



Ralph E. Towne, sales promotion manager of the Rheem Manufacturing Co., New York, and James F. Donnelly, marketing director of the A. O. Smith Corp., Kankakee, Ill., are shown above inspecting the "Court of Flame" trophy which has been adopted to symbolize the gas water heater sales campaign of the Gas Appliance Manufacturers Assn. now going at top speed throughout the nation.

President Arthur Stockstrom, of American Stove Co. has announced the following personnel changes have been made by the board of directors:

Marc W. Pender, vice president in charge of sales, has been appointed to the board of directors.

Clark P. Fiske, treasurer, has been appointed to the board of directors and is now secretary and treasurer of the company.

W. B. McMillan, president of Hussmann Refrigerator Co., St. Louis, has been appointed to the board of directors.

Tom Gibbons, assistant advertising manager, is now advertising manager.

W. T. Trueblood, Jr., is sales promotion manager.

The changes resulted from the retirement of T. M. Sourbeck, a member of the board and manager of the company's Lorain, Ohio, factory at age 72; the retirement of George E. Baker from the board and from the



A group of distributor, dealer and gas company servicemen who attended the first of a series of service schools conducted by Bryant Heater Division, Cleveland.

office of secretary because of ill health; and the resignation of Lloyd C. Ginn as a member of the board and manager of the advertising and sales promotion department.

John H. Faunce, Jr., for the last three years district manager of sales at the Chicago office of Lukens Steel Co., Coatesville, Pa., has been named as manager of sales promotion with headquarters in Coatesville, according to an announcement by J. Fred-eric Wiese, vice president in charge of sales.

A new sound slide film, "The LP Giant," has been released by Bryant Heater Division of Affiliated Gas Equipment, Inc.

Bryant's newest film calls for an awakening of planned selling activity among LP-Gas men and stresses the heating load, space, as well as

water, as the foundation for a successful LP-Gas business.

Running time of the film is 15 minutes. Film and record may be purchased or had on loan from Bryant at 17825 St. Clair Ave., Cleveland, Ohio, or through any one of its many distributors.

To keep its distributor-dealer organization informed as to the newest developments in product design and service, Bryant Heater Division recently conducted the first of a continuing series of service schools at its headquarters in Cleveland, Ohio.

A capacity group was in attendance at the first session, which dealt in the fundamentals of heating, analysis of gases, adjustment and servicing of heating controls, and servicing and installation of Bryant equipment. Together with the above-named subjects, explanations of dual-fuel operation, quality control, and volume water heating concluded the ma-

LP-Gas FORMS

Kraftbilt LP-Gas Forms are designed to help you keep better records at lower cost.

- Customer records
- Sales tickets
- Sales records
- Cylinder records
- Work orders
- Delivery costs
- Inventory records
- Purchase orders
- Voucher jackets
- Route cards
- Schedule cards
- Cylinder tickets
- Journal sheets
- Ledger sheets
- Payroll forms
- Time sheets

FORMS CARRIED IN STOCK
IMMEDIATE SHIPMENT
FREE CATALOG

ROSS-MARTIN CO.

419 E. Fourth St.
Tulsa 1, Oklahoma

for items covered during the three-day meeting.

The promotion of R. A. (Ray) Bissell to sales promotion manager of Bryant Heater Division is announced by J. N. Crawford, director of sales.

Mr. Bissell spent 13 years with Brooklyn Union Gas Co. as district heating supervisor, before joining Bryant's New York factory branch in 1945 and has been with the Cleveland headquarters' office since December, 1948. He will coordinate Bryant sales promotion activities for the entire United States.



CHAS. C. BROOKS

Charles C. Brooks has been appointed Southeastern representative of the Pressed Steel Tank Co., according to an announcement by Norman A. Evans, vice president in charge of sales for the company.

With headquarters in Atlanta, Mr. Brooks will serve the entire Southeastern territory for the Pressed Steel Tank Co. of Milwaukee, manufacturers of containers for gases, liquids and solids.

Charles "Spike" Brooks is a native of Baltimore. He joined the engineering department of Pressed Steel Tank Co. in 1946 and has recently transferred to the sales department for his appointment as Southeastern representative.

Larson Distributing Co., 550 Lincoln St., Denver, Colo., has been appointed distributors of all Florence range and heater lines for Colorado, southern Wyoming, and western Ne-



P. T. symbolizes genuine Performance Tested Delta LPG Systems.

STANOGAS, INC.
DIVISION OF
TIN BROOK MALLETS
Wholesale Distributors of L. P. Gas and Equipment

TELEPHONE 64-15

OFFICE: ADAM BUCHHEIT ST.
KATONAH, INDIANA



Top Photo: Charles L. Snyder, Inc., Lafayette, Ind.
Bottom Photo: Multiple tank storage for the installation

Delta Tank Manufacturing Co.
Baton Rouge, Louisiana
Dear Mr. Hesser:
Enclosed find picture of eight Delta Tanks installed on a garage in Lafayette, Ind. The heat loss of this building is 1,000,000 BTU. This building is heated with Bryant Unit Eastern fueled from the eight Delta Tanks. The cost of this installation was less than a central heating plant using oil or coal, and we have enough customer storage to take the customer thru the cold part of the winter.

May 12, 1949

Yours truly,

W. L. Bond

PERFORMANCE *Tells the Story*

Performance in the consumer's installation is your final test of the LPG systems you sell and service.

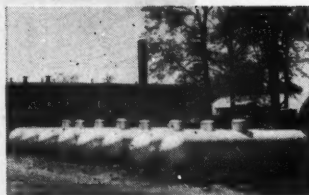
That's why the Performance Tested reputation of Delta storage vessels—both tanks and ICC Cylinders—is so important to you.

Write today for complete information on how P. T. means "Profit Time" for you



DELTA TANK MANUFACTURING CO. INC.

P. O. BOX 1469, BATON ROUGE, LA. • P. O. BOX 1091, MACON, GA.
Export Office: Suite 118, International Trade Mart, New Orleans, U. S. A.
MANUFACTURERS OF LPG PRESSURE TANKS AND I.C.C. CYLINDERS



Liquefied Petroleum Gas

Cities Service Oil Co.

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A DEPENDABLE SOURCE
UNIFORM PRODUCTS
A CAPABLE SUPPLIER
TWENTY YEARS' EXPERIENCE

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IN LP GAS ALSO

CITIES SERVICE
MEANS
GOOD SERVICE

•

CITIES SERVICE OIL CO. (Del.)

•

BARTLESVILLE, OKLA.
CHICAGO, ILL.

Other Sales Offices

Cleveland
St. Paul

Kansas City
Toronto

braska, according to an announcement just made by C. P. Connally, Jr., Western division sales manager for Florence Stove Co.

For 22 years Larson Distributing Co. has been serving this area. Present officers of the company include O. L. Larson, president; John L. Larson, secretary-treasurer, and W. T. Mathews, assistant secretary-treasurer.

The board of directors of Servel, Inc., has elevated Louis Ruthenburg to the newly-created post of chairman of the board and chief executive officer in recognition of his important contributions to the company's development since he became president in 1934. Upon Mr. Ruthenburg's nomination, the Servel board named as president, general manager and director W. Paul Jones, who has been in the refrigeration industry 28 years and who at one time had been advertising and sales promotion manager of Servel. The action was taken at a meeting of the Servel board in New York August 30.

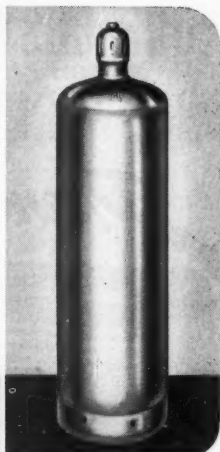
Mr. Jones resigned as vice president and director of Philco Corp., in charge of the refrigerator division, to accept the post. He was elected president of Philco Refrigerator Co. in 1938. When the Philco Corp. was formed in 1940, he was named vice president and director, in charge of the refrigerator division. His headquarters will be in Evansville, Ind.



LOUIS
RUTHENBURG

There's a **BIG DIFFERENCE**
in Lightweight Propane
Cylinders . . . your wise choice
is the **HARRISBURG**
LITE-WEIGHT

Minimum PRACTICAL Tare Weight
. . . Greater Safety, Longer Life



MANUFACTURED TO I.C.C.
SPECIFICATION 4BA-240

8 good reasons why:

- **MINIMUM PRACTICAL TARE WEIGHT**
—Tare weight of 72 lbs., 25%-30% saving in weight over conventional standard cylinders—strong enough to withstand internal pressure and rough handling Capacity 100 lbs.
- **TOP-QUALITY CONSTRUCTION**—Fabricated from special high tensile strength alloy steel. Greater safety with longer life in service.
- **HYDROSTATIC TESTING**—Every Harrisburg Lite-Weight Cylinder is rigidly inspected and hydrostatically tested to 480 p.s.i.
- **SMOOTH-SIDED**—No ridges or bulges. Sides are smooth for easy sliding on and off delivery trucks and platforms.
- **EASILY STORED**—Can be moved in, out, and around warehouses and filling plants with less effort than standard weight cylinders.
- **EASILY HANDLED**—Less weight on trucks. Your truckmen can pick 'em up and put 'em down in greater numbers per working day.

- **FLEXIBLE**—Supplied with caps, without caps, with valves inserted, without valves inserted—in any quantity—for Domestic or Export use. Supplied with customer's registered mark and serial numbers upon request.
- **HOT-DIP GALVANIZED**—Now available! Write for data and prices on hot-dip galvanized Lite-Weight Cylinders.

Today's Prices Are Worth Knowing
MAIL THIS COUPON

Harrisburg Steel Corp., Harrisburg 4, Pa.

We want prices and delivery on your Lite-Weight Propane Cylinders in quantities of: () 25-99, () 100-499, () over 500, () with caps, () without caps, () with valves, inserted.

Name

Address

City Zone State

Harrisburg
STEEL CORPORATION
HARRISBURG 4, PENNSYLVANIA



96 YEARS IN
PENNSYLVANIA'S
CAPITAL

OCTOBER — 1949

157

YOUR CUSTOMERS WILL WARM UP TO

Premier



Premier—Since 1912



A.G.A. approved for
manufactured, natu-
ral or L.P. gas.



When your customers see this new Premier Vented Heater, you'll start making sales! It is now available in two profit-building models . . . with either 24,000 B.T.U. or 36,000 B.T.U. ratings.

Efficient cast iron burner is easily removed for cleaning if necessary—exclusive with Premier! Raised burner ports provide better combustion—more heat at less cost. Heater is beautifully finished in brown porcelain enamel with chrome trim.

Order the fast-selling 24V and 36V
Premier Vented Heaters today.

Premier

STOVE COMPANY

100 South Sixteenth Street

Belleville, Illinois

Three closed plants of the American Radiator & Standard Sanitary Corp. have been reopened, according to an announcement made Sept. 2 by Theodore E. Mueller, president. The plants are located at Baltimore; Bayonne, N. J., and Buffalo. No action was taken on the Pittsburgh plant, which has been closed since April 28.

Approximately 1700 workers were returned to employment at Baltimore, 400 at Bayonne, and 700 at Buffalo. The Baltimore plant has been closed since April 22, the Bayonne plant since May 27, and the Bond plant at Buffalo since July 1.

A special customer service for the purpose of providing technical information on design, installation, and care of heating and plumbing products has been established by the general sales division of the American Radiator & Standard Sanitary Corp., Pittsburgh, Pa.

The service, according to D. D. Couch, vice president and general manager of sales, will assist distributors, dealers, salesmen, and service men in learning the best ways of installing and caring for American-Standard heating equipment and plumbing fixtures.

The new activity will be developed and expanded by the Application Selling Department, which was created for the purpose.

This department will be managed by Walter Wehner, who was chosen from the sales organization of the Newark sales office. His principal assistants are Charles T. Woodroof and N. H. Richfield.

The Granberg Corp., manufacturers of "Granco" meters, pumps, parts and accessories, announces the opening of a factory branch office and warehouse at 2700 So. Santa Fe Ave., Los Angeles. The establishment of this office makes factory service and

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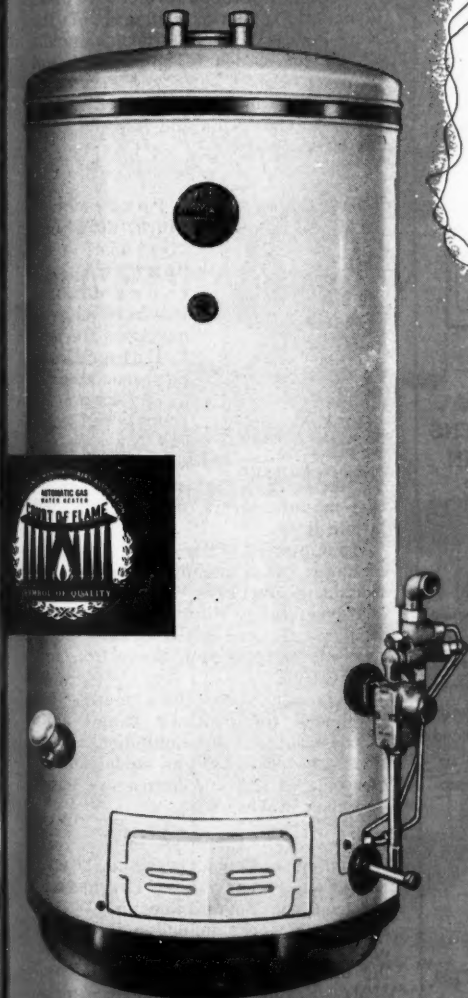
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News



THEY'RE
feature packed...

THEY'RE
John Wood

QUALITY!



Sell the new John Wood Automatic Gas Water Heaters and you sell the finest, feature-packed units money can buy! There are new, higher inputs ... convenient 45° angle control and drain locations ... the famous John Wood internal flue ... and the modern design that will fit anywhere. Quality constructed with accurate snap-action thermostat, safety shut off, helical heat retarder baffle, heavy blanket insulation and magnesium anode, John Wood Automatic Gas Water Heaters carry warranty plans providing up to 10 years protection. Get complete information on the profitable, easy-to-install John Wood line. Write today! JOHN WOOD MANUFACTURING COMPANY, INC., Conshohocken, Pa., Chicago 9, Ill., Toronto, Canada

JOHN WOOD

FOUNDED 1887

WRITE FOR COMPLETE INFORMATION OR SEE YOUR PLUMBING AND HEATING JOBBER

MERION AND PENFIELD AUTOMATIC GAS WATER HEATERS

RELAXED?



**SURE — I RELY ON ATHENS
TO KEEP ME SUPPLIED IN
BUTANE and PROPANE**

Athens' numerous supply points and adequate transportation facilities assure you a truly reliable source of Butane and Propane. Our evergrowing list of satisfied customers speaks for itself on the advantages of dealing with an organization who has your problems at heart. Buy from Athens and avail yourself of our experienced engineers and let their knowledge assist you in your bulk plant operations.

Athens

PETROLEUM CORP.

McBirney Bldg.

Phone 3-7133

Tulsa, Okla.

immediate delivery available to southern California customers.

Douglas Wilkings, former vice president and general manager of the New Plastic Corp., has been appointed division sales manager and will be in charge of sales and service of Granco products throughout the southern California and Arizona trading area.



H. C. ERHARD

Perfection Stove Co.'s new "Oriole" and "Acorn" gas range divisions will have as sales manager Herbert C. Erhard, who was associated for more than 25 years with Standard Gas Equipment Corp., Baltimore, Md., former

manufacturers of the Acorn and Oriole lines.

Appointment of Mr. Erhard as sales manager was announced by C. H. Foulds, Perfection's vice president in charge of sales. Since the first of the year, Mr. Erhard has been sales manager of the Anderson Stove Co., Anderson, Ind.

Perfection Stove Co. a month ago purchased the domestic range lines of the Standard Gas Equipment Corp., adding several new gas models to its own line of gas and kerosene ranges and cook stoves.

Stanley J. Roush, president, Kerotest Manufacturing Co., has announced the appointment of W. M. Frame as works manager in charge of all engineering and manufacturing operations.

Mr. Frame was formerly works manager, Spang Chalfant division of National Supply Co.

BUTANE-PROPANE News



"That's an
O'Keefe & Merritt"

INSTANT RECOGNITION
and you get out the order book!



INSTANT ACCEPTANCE
and you write it up!



O'Keefe & Merritt's many EXCLUSIVE features such as the famous *Grillelevator Broiler*—step-saving *Vanishing Shelf*—*Kool-Kontrol Panel*—are features that women quickly recognize as making an O'Keefe & Merritt so much easier to cook with!

Put these sell-on-sight features to work for you. Profit by the range your customers know by sight, the one women will specifically ask to see!

NOW There's an O'Keefe & Merritt LP Range for every budget, every need. More than 12 models from which to choose. Write for complete details today!

O'KEEFE & MERRITT COMPANY 3700 EAST OLYMPIC BOULEVARD, LOS ANGELES 23, CALIFORNIA

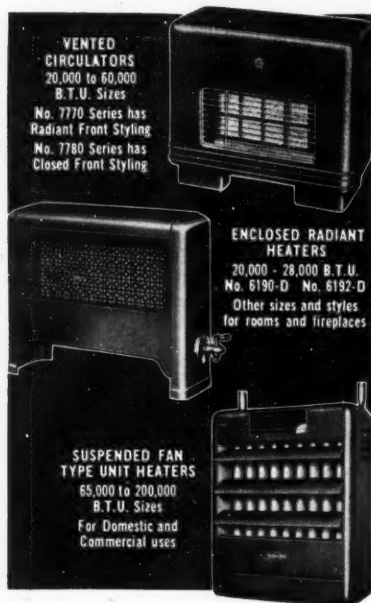
OCTOBER — 1949

161

Peerless

Gas Heating Products

**Styled for Beauty
Built for Duty**



Write today for descriptive literature on this complete line that is made to sell made to last made to satisfy.

A. G. A. APPROVED FOR ALL GASES

Peerless

MANUFACTURING CORPORATION
LOUISVILLE, KENTUCKY

Malsbary Manufacturing Co., of Oakland, Calif., has for 28 years manufactured an instantaneous water heater and steam generator. Thousands have for years been in daily use by West Coast dairy farmers for washing and thoroughly sterilizing their milking equipment. It is now introduced for the first time east of the Rocky mountains, and is being merchandised through the bottled gas companies.

Metropolitan city health authorities have for years demanded lower bacteria count milk. To meet this demand the large dairies have insisted that their supplying farmers wash their milking equipment in 120° water and sterilize in 180° water. Malsbary gives the farmer an immediate and continuous flow of hot water at any given temperature. For further positive sanitation and bacteria control, Malsbary will supply wet steam in a matter of seconds.

Due to its economy, it also presents an entree for a bottled gas installation on an electrically equipped farm. Even at 1.5c per kilowatt hour rates, an electric water heater is more expensive to operate than is a Malsbary; the reason being that the farmer uses gas only while washing and sterilizing his equipment.

Kalamazoo Stove and Furnace Co. has appointed William C. Allen, of Birmingham, Ala., as Southeastern regional manager to set up and supervise a distributor organization in a nine-state area.

The new plan will benefit Southeastern Kalamazoo dealers. To meet his individual requirements, each dealer will draw from the distributor's complete inventory, rather than order from the factory in Kalamazoo, Mich.

A well-known former manufacturers' representative, Mr. Allen is op-

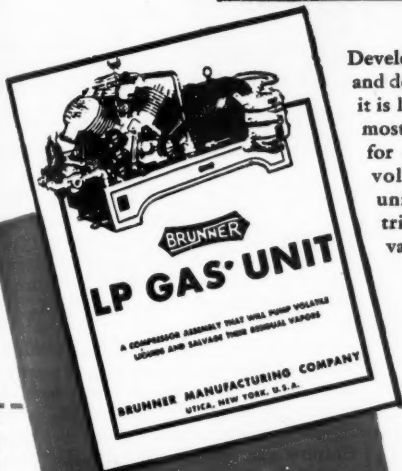


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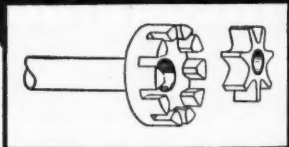
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erating from new Kalamazoo regional offices at 714 North Third Ave., in Birmingham. His territory includes North Carolina, South Carolina, Florida, Georgia, Alabama, Louisiana, Mississippi, Tennessee and Arkansas.

Lee Brand, vice president of the Empire Stove Co., Belleville, Ill., has announced the appointment of Robert H. Ewing as district sales manager for the company in western Pennsylvania, Ohio, and West Virginia.



BOB EWING

Mr. Ewing was formerly with the Washington Gas Light Co., Washington, D.C.; The Tidewater Gas Co., Virginia Beach, Va. (Py-rofax); the Ruud

Manufacturing Co., Pittsburgh, Pa., and was the assistant district manager for Empire in the Maryland-Virginia-Carolina area under L. J. Rodauch.

Bob Ewing replaces Jack Qualey, who has resigned because of ill health. His efforts will be devoted toward the distribution of Empire gas floor furnaces and circulators and the new Empire gas range. He will also represent the Morley Manufacturing Co., Mascoutah, Ill., manufacturers of commercial gas cooking equipment, which was formerly produced by the Majestic Manufacturing Co., St. Louis.

Payne Furnace Division, Affiliated Gas Equipment, Inc., will shortly move its manufacturing facilities from Beverly Hills to Monrovia, Calif., where the plants of the Day & Night Division, manufacturers of

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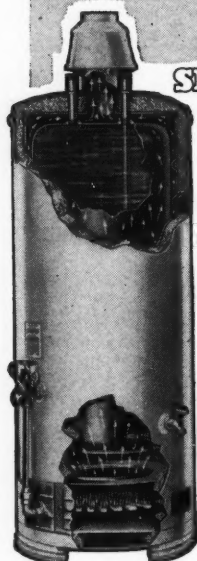
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WATER
HEATERS



water heaters and "Panelray" space heaters, are being expanded to accommodate manufacture of the Payne line.

In addition, two new buildings are nearing completion for Payne sales offices, research staff and warehousing. The Payne plants in Beverly Hills will be sold.

Day & Night and Payne will each maintain its separate identity, as in the past. There will be no combining of sales personnel, sales activities or product distribution. The move, however, will give both Payne and Day & Night the advantages of greatly increased facilities.

Fred Hendrix of Atlanta, Ga., has been appointed sales representative for **The J. B. Beaird Co.**, Shreveport, La., John Tullis, Jr., manager of sales, announced recently.

Mr. Hendrix will handle sales of Beaird LP-Gas systems, pressure storage, and liquid storage tanks in the Southeastern states. He is well known throughout the area, where he has been active in the LP-Gas industry for many years. He was previously Southeastern manager of Estate Stove Co. and Southern Gas & Equipment Co. During the war he was in the operating and construction end of the LP-Gas business.

He will continue to reside in Atlanta at 176 South Colonial Homes Circle N.W.

I. Grant Overcash, divisional sales manager, Dearborn Stove Co., Dallas, has recently had the Memphis and New Orleans districts added to his sales district.

He has appointed John Albright as regional sales manager in the Memphis territory and John Waltersdorf as regional sales manager of the New Orleans area.

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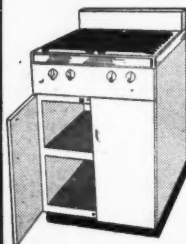
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A. F. H. SCOTT

Allison F. H. Scott, formerly with the Federal Housing Administration in Washington and long active in the heating industry, has been appointed Southwestern regional manager of the South Wind domestic heating equipment division of Stewart-Warner Corp. He will headquarter at Dallas, Texas, according to H. W. Milner, salesmanager of domestic heating equipment of South Wind.

The Dallas district office of Stewart-Warner is at 1614 North Industrial Blvd.

Appointment of Rulane Gas Service, Charlotte, N. C., as distributor of "Saf-Aire" LP-Gas-burning wall furnaces has also been announced by Mr. Milner.

The Rulane firm serves approximately 60 dealers in the Carolinas, Mr. Milner said.

Fire which caused an estimated damage of \$200,000 to Oakland Foundry Co.'s molding shop in Belleville, Ill., Sept. 4, held up production only one day.

The molding shop covering two-thirds of a block was little used. Actual loss in patterns used to make castings for stoves was still undeterminable.

Plans for expansion of Oakland Foundry Co.'s main assembly plant facilities will be undertaken immediately and it is expected that full production will be attained within two weeks.